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Dr. Lund's Trial.



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*THE TRIAL OF*  
Doctor Oscar F. Lund,  
UPON AN  
INDICTMENT  
FOR  
MANSLAUGHTER.

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“Magna est veritas, et prevalebit.”

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1871.



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# THE TRIAL

WAS HELD AT THE

Hudson County Court of Quarter Sessions,

BEFORE

HON. B. F. RANDOLPH, PRESIDING JUDGE,

AND

JOHN STURGES, F. W. BOHNSTEDT,

JOHN BRINKERHOFF,

AS ASSOCIATE JUDGES.

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A. Q. GARRETSON, *District Attorney.*

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J. DIXON, JR.,

W. E. ROGERS,

ALBERT S. CLOKE,

COUNSEL FOR DEFENDANT.

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Washington, D.C.

ALBERT E. COCHRAN, *Stenographer for Defendant.*







# PREFACE.

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I offer to my friends and the public these pages, which contain the evidence elicited during my trial for manslaughter, held before his Honor, Judge B. F. Randolph, at the Hudson County Court House, in Jersey City, New Jersey. The trial commenced Monday, December 5th, 1870, and continued, without interruption, for two weeks.

I neither desire nor intend to comment upon the evidence ; it speaks for itself. I wish, however, to thank all my friends who stood so nobly by me in my time of great need ; and I would also thank those gentlemen, who had never met or seen me before, but who came forward, uninfluenced by any prejudiced feelings against a system of medicine not regarded by themselves as orthodox, or against me as an advocate of that system—who gave their testimony in most distinct and unbiased language—who concealed no facts, thereby necessitating a rigid cross-examination to tear the truth from their reluctant lips—and who, finally, were not seeking to secure a verdict of guilty, but were giving utterance only to honest convictions, anxious to see nothing except justice itself done. I would, moreover, thank most heartily all those of my friends, who, although not actual witnesses upon the stand, still gave their busiest hours daily to me, and who were constantly present in the Court-room during the progress of the case, thus testifying to me, in an unobtrusive manner, an offering of much sympathy and many good wishes.

Among so many friends, I would offer a tribute of respect to each one individually if I could do so, but it is impossible to mention the names of all. If I once commenced I should not know where to draw the line of demarcation, between my duties to one and my obligations to another, which would show me where to stop.

I cannot, however, allow the present moment to pass, without alluding by name to one gentleman who has on many occasions proved himself to me both a true friend and a kind counselor. I appreciate him, as a careful, correct and able physician. I respect



him, as a noble and good man. I honor him, as one older in years and wiser in experience, and as one upon whom I can always rely for advice in time of need and assistance in time of distress. I allude to Dr. J. J. Youlin, of this city. A friend in need is a friend indeed.

I submit and dedicate this book to a discerning and to a discriminating public. Let every man, as he reads it, judge for himself. Let him eliminate every assertion from the testimony which could possibly have been influenced, in any manner or degree, by any personal motives. If, while reading the following pages, the testimony of any witness is found valuable as only making manifest his own utter ignorance of even the first rudiments of physiology, let the evidence of that witness be cast out, as of one not qualified to be called an expert. If another witness seems to have learned his story, in common with others, by heart, and clings to the text given him concerning the cause of death, showing an obstinate disposition to repeat it, parrot-like, hoping by its continual iteration, to secure conviction, let that evidence also be cast out, as not worthy of credit. If still another, in an unguarded moment of anger, forgets himself so far as to show the cloven hoof, and to speak words really confessing that his only purpose is to condemn the accused if possible, then let his testimony be stricken out, as being too prejudiced and too far from a candid and impartial opinion.

On the contrary, let the words of those gentlemen who have no personal motives to influence their thoughts and mould their answers; who not only *give* their opinions, but who also are able to *sustain* them, and who prove themselves perfectly familiar with every part of their profession, be accredited with all the confidence they may justly deserve.

After all this elimination is completed, and every prejudice and unworthy feeling thrown aside, let each man for himself place the assertions of those who said John D. Coates died from morphine, in one scale of the balance, and the words of those who declared he could not have so died, in the other, and then, in conclusion, judge for himself which scale preponderates.

MADISON AND CLINTON AVES., BERGEN, N. J.,

*January, 1871.*



# TRIAL OF DOCTOR LUND.

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After seventeen peremptory challenges by the defense, the following named gentlemen were impaneled as jurors :

- |                             |                         |
|-----------------------------|-------------------------|
| 1. Foreman, Mitchell Loder. |                         |
| 2. Thomas Idell.            | 7. William C. Wood.     |
| 3. William W. Lavense.      | 8. John H. Bookstaver.  |
| 4. Peter C. Earle.          | 9. Charles Dennison.    |
| 5. Albert M. Hedges.        | 10. William C. Weir.    |
| 6. Thomas Gardner.          | 11. George Klattenhoff. |
| 12. John I. Rollins.        |                         |

Mr. Dixon, the senior counsel for the defendant, then rose and addressed the Court, respectfully requesting that an order be made excluding all witnesses from the room, except while actually giving their testimony upon the stand.

As the District Attorney made no objections, providing the same rule was made applicable to the witnesses for the defense, the Court gave the desired order, making an exception, however, in regard to the medical witnesses, by not including them in the order.

The trial then was opened by the State calling as its first witness—

MRS. MARY COATES.

She being examined by Mr. Garretson, testified as follows : I live in South Bergen, and was the wife of



the late John D. Coates; he had lived in Bergen for six years; on the Sunday previous to the 20th of last July, he was taken sick about eleven o'clock at night; I did all I could for him, putting on mustard and bathing his feet, but as he got worse, I sent for Dr. Wilkinson about three o'clock in the morning; he came and sent my brother, James Kelly, to the drug store for some medicine; the medicine did him good, so that he got well after it; the next day he was around, seemed quite well, and went to the ball ground; he did not, however, like the medicine, as it tasted too much like castor oil; he did not go to his work; he went with me to the ball ground, about half-past one, and staid until four o'clock, when he saw Dr. Wilkinson coming, and went home to meet him; our house was two blocks from the ball ground; my husband met the Doctor in the yard; he did not give my husband any more medicine then.

Monday night my husband seemed pretty well, and slept all night; he did not take any more of Dr. Wilkinson's medicine after one o'clock, Monday; on Tuesday morning when he rose, he did not feel as well, and did not go out of the house; he seemed dissatisfied with Dr. Wilkinson, and asked me if there were any other doctors near by; I told him there was Drs. Lund and Lewis; he asked me to send my little daughter for Dr. Lund; I did so, and he came between two and three o'clock, Tuesday afternoon; he requested that I should send to his office for the medicine; I sent my daughter, and she brought back some powders in pink paper; I gave him three of them, one every hour, commencing at three o'clock; they made him worse; his face and hands swelled and he became sick at his stomach; after five o'clock I began again to put on hot flannel cloths over his stomach, but he still grew worse; at eleven o'clock I went over after Dr. Lund again; I rang the bell;



the Doctor himself came to the door, and I told him I wanted him to come to my husband, that he was very sick; he said he would be there in fifteen minutes; I had no further conversation with him then, but went home; I waited until ten minutes past twelve, when I went back again for him, my brother going with me.

Q. What did you do when you got there? A. I rang the bell and the boy came and opened the door for me; I asked him if the Doctor was in; he said yes, he was in bed; I told him to run up stairs and tell him quick that I wanted him right away. Q. Did you only say *I wanted him*?

Mr. Dixon interrupting: O come, Mr. Garretson, don't cross-examine your witness.

Q. Tell the exact words you used? A. I told him to go up and tell the Doctor I wanted him right away; I told him to go up stairs and tell the Doctor I wanted him right away; I told him to tell the Doctor *Mrs. Coates* wanted him. (*See Appendix a.*)

Q. What did the boy say? A. He went up stairs.

Q. How long was he gone up stairs? A. He was only gone three or four minutes, if he was that. Q. Did the

boy come down again? A. Yes, sir. Q. What then?

A. Well, Dr. Lund came down himself in two or three minutes after that to his front door. Q. Who spoke first? A. I spoke to him.

Q. What did you say? A. I asked him why he did not come at eleven o'clock to see my husband; I was in such a way to get him to come; he told me not to get in such a hurry, he knew what was the matter; the powders he had given in the afternoon were not strong enough to take effect; he told me to hold on for a moment, and he went up stairs and brought me down three powders; he reached them into my hand; I asked him would he not come and see my husband, and he told me, no, there was no necessity; for to go



home and do as he told me ; I asked him again would he not come and see my husband as he was very bad ; he asked me could I not mix up a powder ; I told him yes I could, but I thought he was the properest person to do so ; he told me to mix it up in a tablespoonful of cold water, and to be sure that I gave it all to him ; I told him again I had rather he would come along with me ; he told me he would not ; that he would not open the door that night to me again ; so I told him I would not bother him any more ; so I went home and gave the powder as directed.

Q. How many powders did he give you ? A. Three.

Q. How many did you give your husband ? A. One.

Q. What time did you give it ? A. About half past twelve ; he did not have it ten minutes before he was raving wild.

Q. How did he act ? A. He acted just as if he was in the greatest agony in the world ; his insides, he said, were burning ; and he threw himself down on a rocking chair, and in five minutes he was fast asleep ; he continued bad up to about three o'clock ; he snored dreadfully, and my brother was afraid that something was the matter with him.

Q. What do you mean by continued bad ? A. Well, he must have been in great pain.

Q. What did he do ? A. He was just wild through the house, with a pain in his head and wringing his hands.

By the Court: When was this. A. Before he sat down, and he continued to sleep from that out.

Q. You said he "continued bad" until three o'clock—What did you mean by that ? A. He never waked up at all that I know of, for I was taken very sick at that time.

Q. What did you do at three o'clock ? A. He did not wake up at all (*this is a mistake ; he did wake up, as will be seen*), and I then sent after Dr. Wilkinson ; he came right away, and did not do anything himself for him, but had one or two doctors.

Q. Where was your husband all this time ? A. In



the chair; they did all they could for him, but could not get any medicine down him.

Q. What other doctors were there? A. Drs. Forman and Bock. Q. What time did Dr. Forman come? A. About six o'clock. Q. Who was with your husband from three o'clock until six? A. Mr. Welch. Q. Any doctors? A. No, sir. Q. How long did Dr. Wilkinson stay after he came? A. All the time up to twelve o'clock. Q. What did Dr. Wilkinson do when he came? A. He felt his pulse, clapped his hands, and tried to arouse him. Q. What became of the powders? A. I saw them last with Coroner Burns at the Inquest. Q. What was the difference between the first and last powders? A. The last were much larger than the first; there was no difference in color that I noticed; the last ones were not put up as nice as the first; both were in pink paper.

Q. How long did Drs. Forman and Bock stay? A. Up until about twelve o'clock; they gave my husband up when they went away; they could do no more for him; he was dying; he died at half past twelve. Q. Was there any change in him before he died? A. He became quite white just before he died. Q. When did you see Dr. Lund next? A. About eight o'clock the morning he died; he came into the room as the door was open and looked at my husband, and felt his pulse; I says, Dr. Lund, is not this an awful loss for me; he looked at me and very abruptly said, you have not lost him yet. Q. Did he say anything else. A. No, sir; he went away without saying or doing anything more.

Q. How old was your husband. A. He was forty-seven; he was an engineer on the Cunard dock; he worked up to twelve o'clock the Saturday night before he died.



*Cross-examination* by Col. Rogers :

My husband had not been sick for twenty years before this last sickness, and had never taken medicine I know of; it was about three o'clock, Monday morning, that I called Dr. Wilkinson; Monday afternoon we walked to the ball ground, and were there about two hours; we had to stand while there; it was a pretty warm day; my husband began to get worse about eight o'clock, Tuesday morning, complaining of a pain in his bowels; he did not complain of his head until he had taken the powders on Tuesday afternoon; he was growing worse all day; half an hour after taking the medicine, he commenced to complain of his head, while his hands and face swelled up; he leaned his head upon his hands, and said his head was awful; between this time and the time I first went for Dr. Lund, he was growing worse all the time with the cramps in his stomach, but I do not know whether the pain in his head continued; when I gave him one of the second powders I got, he was then complaining of his head and the pain in his bowels; he said then, I will take the medicine, kill or cure; after he took the powder he seemed in great agony, tore his hair, wrung his hands; said he was burning up in his insides; he could not any of the time lie in bed on account of the pain, but sat up in the rocking chair; he was in great pain at the time the powders were given; after I gave him the powder I remained with him until about two o'clock, when I was taken very bad with the cramps and had to leave the room; I went down stairs and laid down on the lounge, leaving my brother and Mr. Wm. Welch with my husband; I laid there about two hours; my husband was growing worse all the time between my first and second call for Dr. Lund, being in great agony; this agony lasted all the time from five o'clock



until twelve; it was in the stomach, and ceased in about ten minutes after I gave the last powder.

Q. Had your husband woke up between the time he went to sleep and the time you went to bed? A. Not that I know of. Q. Were you present in the room all the time? A. No, sir. Q. Where were you? A. Down stairs on the sofa. Q. That was after two o'clock; were you down stairs before that? A. No, I don't think I was. Q. Don't you know? A. I don't think I can tell. Q. Did you take any medicine for the cramps that night? A. No, sir. Q. Did you take anything else for the cramps? A. No, sir. (*Appendix b.*)

Q. You spoke about your husband's snoring or breathing hard; was that before you went down stairs? A. Yes, sir; but I thought he was only asleep; I noticed it in about ten minutes after he took the powder, and it continued until I went down stairs. Q. What was your husband's personal appearance? A. He was a stout man. Q. Short neck? A. Rather, not particularly so. Q. Did he use tobacco? A. He smoked, but did not chew. Q. Was he in the habit of smoking every day? A. I suppose he was. Q. Smoke in the morning? A. I suppose so. Q. In the evening? A. Yes, sir. Q. Pipe or cigars? A. If he could not get a cigar, he would smoke a pipe. Q. He smoked then every day? A. Oh, he did certainly. Q. Was he smoking every evening through all the evening? A. Yes, he would take a pipe.

Q. Where did you apply the poultices? A. On his stomach; I kept them hot from half-past six Tuesday evening until eleven. Q. Did you apply the poultices to the same place Sunday night? A. Yes, sir. Q. Any Monday night? A. No, sir. Q. What directions did Dr. Lund give you in regard to giving the last powders? A. He told me to give one



every hour. Q. Did he tell you if he was not better to give another? A. No, he told me to give it to him every hour. Q. Whether he got well or not? A. Yes, he made no statement about that. Q. Why did you not give him another? A. I could not, he was asleep. Q. Did not Dr. Lund tell you not to give another if it relieved him? A. No, he told me to go home and give one every hour. Q. Do you remember giving your evidence about this particular point before the Coroner's Jury? A. Yes, I think I do, but my mind has been greatly upset since then. Q. Did you hear of his drinking anything that night? A. No, sir; he was a man who never drank. Q. Did you have any liquor in the house that night? A. No, sir. Q. Any ale? A. No, sir. Q. Did Mrs. Welch bring any into the house? A. No, sir. Q. Did you send out for any? A. No, sir. (*Appendix c.*)

By the Court: When Dr. Lund gave you his directions, was any one by you? A. Yes, sir, my brother stood behind me on the stoop.

DR. JAMES WILKINSON,

Examined by Mr. Garretson, testified—

Q. Where do you live? A. Jersey City. Q. You are a practicing physician? A. Yes, sir. Q. How long have you been in practice? A. Twelve years. Q. Did you know Mr. John D. Coates in his life time? A. I only saw him about forty-eight hours before his death, on Sunday night, never before. Q. At what time? A. I do not know; it was some time in the night. Q. Where did you find him? A. Setting up in a chair in the front room. Q. What was the matter with him? A. He was complaining of distress over the pit of his stomach; he was rubbing his stomach when I saw him. Q. Did you examine him? A. Yes, sir; I made up my mind there was no serious difficulty whatever; he was very much



agitated when I saw him, but did not seem to be in much pain. Q. What did you think was the trouble with him? A. Well a colicky trouble; I thought it was a nervous difficulty, as these symptoms seemed most prominent.

Q. What did you do for him? A. I prescribed ammonia and valerian. Q. Anything else? A. No, sir. Q. Two mixtures? A. No, sir; it was the valerianate of ammonia; my directions were to take it every hour, I think, until relieved. Q. Was the medicine procured before you left? A. I do not think it reached the house before I left, but I am not positive. Q. How much did you direct to be taken? A. A teaspoonful; I should state here that this preparation was not the valerianate itself, but the elixir of the valerianate of ammonia. Q. When did you reach home? A. It was in the night.

Q. Did you see him afterwards? A. I called again the next day, some time in the afternoon. Q. Where did you find him when you called? A. I knocked at the door, but finding no one at home was on the point of leaving, when I saw him walking up the street towards the house. Q. Did you speak to him? A. Yes, I waited in the yard until he came in; I asked him how he felt; he said very well; I then recommended him to take as a preventative for these stomach difficulties, bromide of potassium. Q. Did you make any examination of him that day? A. Yes, sir; I could not find any disease about him; he said he felt very well; he said he had never been sick; I think he asked me if I was going to call again, and I told him no, unless I heard from him.

Q. When did you see him next? A. A little after five o'clock, Wednesday morning, at his house. He was sitting up in a chair, with his head thrown back. Q. Who was with him? A. His wife, daughter and a Mr. Welch, who came after me. Q. What time did



he come after you? A. Five o'clock. Q. How soon did you go? A. Immediately. Q. What were his symptoms then? A. He was totally insensible. The pupil of the eye was contracted as small as a pin's head; the surface of the skin was blue—livid; large beads of cold perspiration stood on him; stertorous breathing—snoring; respiration about twelve to the minute; pulse slow and laboring.

Q. What did these symptoms indicate? A. Poison by opium or morphine. (*Exactly the same symptoms are found in many different diseases.*) Q. What did you do for him? A. I began to apply restoratives; as applications of mustard. In the meantime, however, I had sent for assistance. I advised the family to send for Dr. Lund. They informed me that Dr. Lund had prescribed these powders and one had been given. I advised them to send for him immediately. This they refused to do, as he had declined to come, so I sent for Drs. Forman and Bock. Q. When did they get there? A. In the neighborhood of six or seven o'clock. Together we proceeded with the treatment. We tried flaggellations—beat him, whipped him; tried to excite vomiting by tickling his throat, and I injected belladonna under the skin, so as to get its antidotal effects; he could not swallow. Belladonna is considered an antidote to opium. (*Appendix d.*) The peculiar effect of belladonna was produced. The pupil of the eye became dilated, and the flush also peculiar to belladonna came over the whole surface. We also tried cold effusions or pouring cold water on him. When the powers of life began to flag, we tried electricity, injected brandy or whiskey into the bowels, artificial respiration was tried, and we were preparing to make oxygen gas for him to breathe, when he died. None of our efforts prevailed in the slightest degree. He sank deeper and deeper.



Q. Were you with him when he died? A. No, sir. I was not at that moment. Q. What time did you leave him? A. I think it was a little after twelve. Q. Was any medicine given him after you were called? A. It was impossible to give him medicine. We tried to give him strong coffee, but he could not swallow. (*Appendix e.*) In my opinion the stomach pump was inadmissible, for two reasons. First, his breathing was so difficult that I think the pressure of the tube upon the glottis would have killed him in a moment. In the second place, he was thoroughly under its influence, as four hours had elapsed since he had taken the narcotic.

Q. Did you know what he had taken? A. Well, Dr. Forman and myself tasted one of the powders, but we could tell pretty well from the symptoms, without seeing or tasting the powder. Q. Could you tell from the taste what they were? A. Not positively. Q. What became of the powders? A. I took one and Dr. Forman the other, or rather I gave him one and kept the other. Q. What did you do with your powder? A. I had it weighed. Q. Was it in your possession all the time until you had it weighed? A. Yes, sir. Q. Who weighed it? A. I first took it to Mr. Wells. I was passing the store one day, and he put it on his scales, and the clerk said he thought there was half a grain.

By the Court: Did you see it weighed?

A. Yes sir. He said he could not weigh so small a quantity on his scales. (*Appendix f.*) Q. What then? A. I think it was the next day I had it weighed by Mr. Gardner, on Monticello Av. Q. Did you see it weighed? A. Yes, sir. The powder had previously been tasted, to the best of my knowledge, by Dr. Forman and myself, and certainly by Dr. Culver. Q. How much did it weigh? A. It weighed a grain as near as possible to weigh it. There was the slightest possible particle want-



ing of a full grain, so slight as that it would be only appreciated by weight. Mr. Gardner thought that about one-sixteenth lacked, about as much, he said, as would be inevitably lost in previously weighing it. Q. What did you do with it after it was weighed. A. After the post-mortem I gave it to the Coroner, during the Inquest, I think. It never passed out of my possession.

Q. When was it weighed? A. It was weighed after the post-mortem, but I am not sure about Mr. Wells.

Q. Was there a post-mortem examination? A. There was. Q. By whom made? A. By myself, assisted by Drs. Forman and Bock, and in the presence of Drs. Culver, Veirs and Buck. Q. What amount of care was exercised in making the post-mortem?

Mr. Dixon interrupting: Never mind about that. Let him tell us what he did, and we will judge for ourselves the amount of care displayed.

The Court: State what was done?

A. Will you allow me to read the minutes that were written on the spot?

Mr. Dixon: Were they written by yourself?

A. No, sir, they were not, as I made the post-mortem.

Mr. Dixon: I object to it.

The Court: Were you acting together?

A. Yes, sir. He wrote while I made the post-mortem.

The Court: State from memory what you can, but you may refresh your memory when necessary with what was written?

A. The post-mortem was made on the 21st of July, about 10½ A. M. The weather was warm, *about (guess work commences here, as there was no thermometer in the room,) 80°*, and it was about twenty-two and a half hours after death. The rigor mortis was well marked and the body well developed. The face was livid, and there was a florid congestion



on the surface of the body, especially on the more dependant parts. There was but little flow of blood on section of the scalp. The dura mater was adherent. There was marked venous congestion of the dura mater and pia mater. There were white fibrinous lines accompanying the blood vessels. The convolutions of the brain were flattened. The brain itself was firm. On section of the brain, the puncta-vasculosa were well marked, the arachnoid fluids slight, but clear. The right ventricle of the brain was empty, the left ventricle contained *about* an ounce of serum. (*The Doctor's post-mortem report before the Coroner, read BLOODY serum. It is an important omission, as its presence would show that the man might have died of apoplexy, and not of morphine.*) The choroid plexus was congested. There was no bloody effusion in any part of the brain. (*To settle the question that there was bloody serum in the left ventricle, see the Doctor's first report before the Coroner's Jury, corroborated by Drs. Forman and Bock, and also afterwards by Dr. Palmer and Dr. Lewis. It cannot then be true that there was no bloody effusion in the brain.*) The cerebellum was *about* healthy, except congestion. On opening the chest there was *about* an inch and a half of adipose tissue. The pleura was adherent on both sides, and on the left side was firmly adherent to the diaphragm. The right lung was adherent to the upper part of the chest. The heart was *about* normal in size, the valves healthy with clots on the right side. The lungs were healthy except the congestion. The liver was large, extending to the left mammary line. It was congested. There were venous congestions of the intestines, particularly of the colon. The kidneys were slightly congested, but otherwise healthy. The external surface of the stomach was reddish and congested. The spleen was large, but not excessively congested.



Mr. Dixon: Do we understand when you use the word congested in the other places, you mean excessively congested?

A. Yes, sir: the gall bladder was filled with a dirty milk colored liquid, the last flow from it being yellowish. The cystic duct was impervious to a probe. (*Which means, in the words of the other physicians, ENTIRELY closed.*) The colon was loaded with fecal matter. I believe that is all.

Q. What appearances were there in this body which would not be found in a healthy body? A. The excessive congestion, the contents of the gall bladder, and the closure of the cystic duct. Q. The adhesions of the pleura: was that healthy or otherwise? A. It was evidence of previous inflammation, perhaps a year old, perhaps twenty. Q. The question extends to perfectly healthy persons? A. In perfectly healthy persons it will not adhere, but it will not shorten life under ordinary circumstances; it showed he had had inflammation at some time or other. Q. Could you tell how long previously? A. No, sir; they were old adhesions though, as they were so hard to break down. Q. Then the appearances found here, which would not be found in a healthy person, were the congestion, the contents of the gall bladder, the stricture of the cystic duct, and the adhesions of the lungs? A. A man may be perfectly healthy and yet have the adhesions. Q. Was there anything else? A. Not that I remember; I would mention that the stomach and its contents were put into a jar, sealed, and handed to the Coroner. (*Appendix g.*)

Q. From the post-mortem examination, what do you conclude was the cause of death? A. Poisoning by morphine. (*Appendix h.*) Q. What were the post-mortem evidences of poisoning by morphine? A. The excessive congestion. Q. What effect had the contents of the gall bladder in producing the congestion? A. I



do not think they had any. Q. What symptoms before death, or appearances after death, were caused by those contents? A. None that I know of. Q. What effect would the adhesions of the lungs have? A. They would make a man short breathed upon exertion. Q. Produce congestion? A. No, sir.

Q. How much matter did the gall bladder contain? A. It was not measured, but I should judge *about* three ounces. Q. Did the congestion of the brain or lungs depend upon the absorption of that matter? A. No, sir. Q. What effect could it have? A. I do not think that the matter in a closed sack would be likely to cause any particular difficulty. Q. How long might it remain there and produce no effect? A. It might remain there altogether; it would ultimately be disposed of; cases have been known where there has been matter in the gall bladder that way, and it has been absorbed, and the gall bladder has dried up.

Q. What is the cystic duct? A. A duct by which the bile enters the gall bladder from the liver. Q. Is there any other openings from the gall bladder? A. No, sir; but there is an opening from the liver by which the bile can still pass from the liver to the bowels. Q. Suppose the cystic duct was entirely closed, how could the bile get out of the gall bladder? A. It could not get out, but would have eventually to be absorbed. Q. What is the difference between the symptoms of a person dying from apoplexy and from morphine poisoning? A. As a rule, the pupil is dilated in apoplexy; in this case it was contracted; in apoplexy we do not have the excessive congestion of the skin that we do in poisoning by opium.

Q. How about the post-mortem? A. In apoplexy the rupture of the blood vessel would be revealed by a clot of blood on the surface of the brain; in this case there was no bloody effusion whatever. (*What then could the effusion of bloody serum in the cen-*



*tricle be called?')* Q. What is the usual dose of morphine? A. From one-sixth to a quarter of a grain.

Q. What is the smallest amount that is known to have proved fatal? A. A case is quoted in which—

Mr. Dixon interrupting: If you are going to quote, suppose you produce the books; we then can read them for ourselves?

A. From my own personal observation, I cannot state how small an amount of morphine will cause death.

Q. Where is the case quoted you were speaking of? A. In Beck's Medical Jurisprudence.

Mr. Dixon objected to the question, on the ground that it covered not only the personal observation of the witness, but the reading of books and the statements of other parties.

Objection overruled. Mr. Dixon excepted.

Witness: Dr. Beck, to the best of my knowledge, quotes two-fifths of a grain, and Dr. Guy, in his Medical Jurisprudence, quotes one quarter of a grain as having proved fatal.

Mr. Dixon: I ask the Court to overrule that answer also, for the reason I have given.

Refused and exception taken.

Q. How many drops of laudanum are equivalent to a grain of morphine? A. I shall have again to quote authority.

Mr. Dixon objected, and took the exception.

A. According to the United States Dispensatory, twenty-five drops of laudanum is equal to one grain of opium.

Mr. Dixon: The Court will please understand that the answer is also objected to.

Answer admitted; exception taken.

By the Court: Q. Are the books quoted, good authority?



A. Yes, sir, first rate; the Dispensatory also states that one grain of morphine is equal to six grains of opium; hence one grain of morphine is equal to one hundred and fifty drops of laudanum; Beck states the same.

Mr. Dixon: That is all under objection.

Q. In what cases do you prescribe a grain of morphine? A. I do not very often do it, unless a person is used to it. Q. How do you discover that?

A. By personal experience and knowledge. Q. Do you ever do it when you are away from the patient?

A. No, sir. Q. What kind of practice would it be to prescribe a grain of morphine, in the absence of the patient?

Mr. Dixon: I object to that as incompetent, coming out of the proper field of questions for an expert.

Mr. Garretson: I say it is an expert question.

Mr. Dixon: Yes, I know it is an expert *question*, but not a question for an *expert*; I object to it, because it is not a complete statement of the present case. It may make a difference whether the patient has been seen within a short time previously.

Question allowed; Mr. Dixon excepted.

A. Highly dangerous, I should think, sir.

Q. Did you see Dr. Lund at Mr. Coates' house at any time? A. Yes, sir. Q. When? A. I think

about seven o'clock, Wednesday. Q. How long was he there? A. A few minutes. Q. Did you have

any conversation with him? A. I merely said good morning. Q. Did he say anything? A. I think he

returned the salutation. Q. What did he do while he was there? A. Nothing. Q. Did he examine Mr.

Coates? A. He *looked* at him. Q. Did he say anything about him? A. No, sir, except in answer to

Mrs. Coates' remark.



*Cross-examination by Mr. Dixon :*

Q. What sort of a patient was it, that Dr. Beck said was poisoned by two-fifths of a grain of morphine?

A. *I don't know, sir.*

Q. Was it a child, or an adult?

A. An adult.

Q. Male or female?

A. *I don't know.*

Q. Age?

A. *I don't know.*

Q. Physical condition?

A. *I don't know.*

Q. Habits of life?

A. *I don't know.*

Q. Do you *know* any particulars about the case mentioned by Dr. Guy? A. To the best of my knowledge, it was a female and delicate.

Q. Do you remember anything else of her condition? A. No, sir.

Q. Whether she was an adult or not? A. She was adult.

Q. What is the largest amount of morphine that, in your knowledge and experience, any one has taken? A. That I have prescribed myself?

Q. I did not ask that question; I asked the largest amount that within your experience any one had taken? A. I have no experience in the matter,

except what I have given myself; I can tell you upon hearsay what parties have taken.

Q. Did you ever see a person that you understood had taken a large amount at that time? A. That I understood

had been taken? Q. Yes, at the time you saw them, you understood had been taken; did you ever see a

person suffering, as you supposed from the effects of morphine? A. Oh, yes.

Q. How large an amount? A. I cannot state; I only know what they told me.

Q. What is the largest amount you ever prescribed yourself? A. I think I gave two grains in one case,



where the man was an opium eater; it had no effect and he said he could take ten grains with impunity.

Q. Outside of that, what is the largest amount you ever prescribed? A. I have seldom prescribed over one-third of a grain.

Q. Will you be kind enough to give me a direct answer to my question? A. Repeat it, if you please.

Q. Outside of that case, what is the largest dose you ever prescribed? A. I think one grain to a person of the same habits.

Q. What was its effect? A. Well, no particular bad effect; it had the desired effect; it annulled the pain.

Q. Have you ever seen a person suffering from the effects of morphine, where you understood he had taken over a grain? A. Only the two I prescribed for, myself.

Q. Before seeing Mr. Coates did you ever see a person whom you supposed had died of morphine? A. From laudanum, sir.

Q. Have you ever seen more than one that had died from laudanum? A. I do not think I have.

Q. Was that a man, woman or child? A. A child, not over two years old; it was dying when I saw it.

Q. How much laudanum had it taken? A. The mother said two drops, but as she was intoxicated, it is doubtful.

Q. Did you examine it post-mortem? A. No, sir.

Q. What were its symptoms? A. Contraction of the pupil, clammy perspiration, stertorous breathing, low respiration, slow and laboring pulse.

Q. How many drops of laudanum are there in an ounce? A. *I don't know.*

Q. Do you know how many in a tea-spoonful? A. About sixty (*the books say one hundred and twenty; see Appendix i*), and eight tea-spoonfuls to the ounce.

Q. Why do you give more morphine to a person used to it? A. Because it takes more to produce any effect.

Q. The use of any other narcotic would have the same effect, in necessitating a larger dose? A. Yes, sir.

Q. The considerable use of tobacco would tend that same way? A. Yes, sir.



Q. Does morphine ever cause pain? A. No, sir.  
Q. Pain in the system is resistant to its effects, is it not? A. Yes, sir. Q. A person suffering great pain could take more without danger than one not suffering pain at all? A. Yes, sir. Q. How does morphine act as poison? A. In producing congestion of the vital organs, and paralyzing the nervous centres. Q. What do you mean by congestion? A. An undue collection of blood in the veins. Q. Which is produced first, the paralyzing of the nervous centres, or the stagnation of the fluid? A. The stagnation first. (*Appendix j.*) Q. What is the first effect of morphine? A. Excitement.

Q. Well, excites what? A. The brain. Q. How does it reach the brain? A. Through the absorbents and stomach, being carried into the blood and so reaches the brain. Q. If it reaches the blood through the absorbents, is it absorbed directly from the stomach, or does it pass into the bowels, and then become absorbed? A. No, sir, it is taken up from the stomach. Q. Directly? A. Yes, sir. Q. What do you call the absorbents by which it is taken up from the stomach? A. They are called absorbents. Q. That is their ordinary name? A. Yes. Q. Is it by them that the nutriment is carried into the system? A. To a certain extent. Q. To any very large extent? A. No, sir, not directly.

Q. The absorption of nutriment commences at the stomach by these absorbents, does it? A. Yes, sir. Q. Before getting into the bowels? A. Yes, sir. Q. Is morphine more rapidly absorbed than food? A. Yes, sir. Q. So rapidly that you think none would pass into the bowels? A. Oh, no, sir. The rapidity of the absorption depends a great deal whether the stomach is full or empty. Q. After being taken up by these absorbents, where is it carried? A. Into the blood. Q. How do these absorbents reach the blood?



A. The absorbents are little minute tubes leading to it. Q. Leading to what? A. To the blood vessels.

Q. Which blood vessels? A. The blood vessels that are near the coating of the stomach.

Q. Which blood vessels, venous or arterial? A. Arterial. (*The witness is rusty in his physiology.*

*The absorbents empty into the VENOUS and not into the arterial system.*) Q. It passes into the arteries then? A. Yes, sir. Q. Then where? A. It is circu-

lated through the system. Q. How does it get through the system? A. The heart throws it through the sys-

tem. Q. How does it get to the heart? A. Through the veins to begin with. Q. How does it get to the

veins? A. It is absorbed in the first place, and passes through the arteries into the veins.

Q. You had it first in the stomach, then in the absorbents, then in the arteries, and now where? A. It

permeates through the body from the capillaries.

Q. And from these arteries around the stomach it permeates the body? A. No, sir, it is carried by the

whole circulation up to the heart. Q. You have not got it into the heart yet; you have it in the arteries

round the stomach? A. It finally goes into the capillaries, and from the capillaries back into the heart.

Q. Do you mean to say that the morphine, which is carried by these absorbents into the arteries, is trans-

ferred by them to the venous blood? A. Yes, sir. Q. Must it not be first deposited? A. It is deposited,

and the absorbents take it up and circulate it in the blood.

Q. The second class of absorbents take it up? A. No, sir. Q. How is it transferred from the arteries to

the veins? A. Through the capillaries. Q. Without being deposited? A. Yes, sir. Q. Now in what

stage of its progress through the system, would it begin to operate by congestion? A. As soon as the first

stage, that of excitement, had passed off. Q. How is



the excitement produced? A. *I don't know, sir.* Q. Well, what is the next effect? A. It is the corresponding depressing effect; the brain being poisoned is unable to perform its functions properly. Q. Which functions are you referring to? A. All the functions. Q. What next? A. After this has continued awhile the blood becomes more and more poisoned, as long as there is any material for it to feed upon, and if there be poison enough to poison the blood up to a certain extent, death ensues, the brain being overcome.

Q. Is the depressing effect produced by the presence of a poison in the blood directly, or by the numbing of the brain? A. The latter. Q. Explain then how you get to the congestion? A. The congestion is produced by the brain being poisoned. (*Appendix k.*) Q. Benumbed? A. Yes, sir. Q. How does that produce the congestion? A. It partially paralyzes the heart so that it is unable to throw its blood with sufficient force to the extremities. Q. How does it paralyze the heart? A. By its poisonous effect upon the nervous centre of the brain. Q. How are the heart and brain connected? A. By nerves.

Q. Which nerves? A. The pneumogastric, if I recollect. Q. With what part of the brain do they communicate? A. The back part of the cerebellum. (*The witness now makes a mistake in his anatomy; the nerve in question does not arise from the cerebellum, but from the medulla oblongata.*) Q. What is there in the morphine that produces the poisonous effect? A. *I don't know, sir.* Q. What is the chemical composition of morphine? A. *I don't know.* Q. Is there carbon in it? A. Yes, sir. Q. Much? A. *I don't know, sir.* Q. Nitrogen? A. *I don't know.* Q. Do you know any of the other component parts except carbon? A. No, sir. Q. Would not carbonic acid gas inhaled produce the same symptoms? A. To a great extent, yes, sir.



Q. Operate substantially the same way? A. Except to affect the pupil. Q. To what do you attribute the effect upon the pupil? A. To morphine. Q. How does it reach the pupil? A. *I don't know, sir.* Q. The presence of any substance where the carbon is excessive would have pretty much the same effect upon the system? A. Except the state of the pupils. Q. Or anything which benumbs the cerebellum would have precisely the same effect? A. If carried far enough, yes, sir. Q. A blow upon the head then might occasion it? A. Occasion what, sir? Q. This same course of symptoms, paralysis of the cerebellum, weakening of the heart, corruption of the blood, and congestion, would it not? A. Yes, to a certain extent, but not the condition of the pupil.

Q. Do you think that the contraction of the pupil is peculiar to poisoning by morphine? A. In a great majority of cases; I never saw a patient under the influence of opium where the pupil was not contracted. Q. I want to know whether there are any of the class of cases where the brain is benumbed, circulation corrupted, blood congested, where we have not also contraction of the pupils? A. Yes, uræmia is sometimes accompanied by contraction of the pupil. Q. None of these symptoms are uniform? A. As far as I know it is uniform in opium. Q. Do you mean to say that books also say it is uniform? A. No, sir. Q. They say it is *not* uniform, do they not? A. Yes, sir.

Q. And you would not by any means conclude that because you saw dilation of the pupil, that it was not opium poisoning? A. No, not positively, no, sir, that is according to the books; I never saw it myself. Q. What is uræmia? A. Poisoning of blood through disease of the kidneys. Q. Did you examine the kidneys in this case? A. Yes, sir. Q. And the other urinary organs? A. I don't remember whether the bladder was examined, I think not; it is possible. Q.



Could not uræmia arise from disease of the bladder?

A. No, sir. Q. It is nothing more than the injection of urea into the blood?

A. No, sir. Q. Could not that take place from the bladder?

A. No, sir.

Q. Might not a diseased condition of the bladder produce a diseased condition of the blood?

A. I don't believe it; uræmia arises from a disease of the kidneys; the bladder is a mere receptacle, a closed

sack, that is evacuated as soon as filled. Q. Why could it not be absorbed from the bladder as well as

from the kidneys?

A. It could not without ulceration.

Q. Yes, but might there not be ulceration?

A. We have ulceration sometimes.

Q. Can you see any physical reason why we could not have uræmia from a disease of the bladder?

A. I don't believe it would be absorbed from the glands.

Q. Why could it not through ulceration?

A. If we had ulceration the urine would irritate it, and it would be voided as soon as formed.

Q. Now, pyæmia, what is that?

A. It is absorption of pus or matter into the blood.

Q. Could not that produce the same effect substantially?

A. No, sir.

Q. Why not?

A. Because pyæmia takes several days to poison the system; the symptoms in this case are not those of pyæmia.

Q. I am not talking about this case; I am asking you generally whether pyæmia might not be attended with the same symptoms you found in this case?

A. No, sir.

Q. You have told us that pyæmia is absorption of pus into the blood; after that absorption it would operate in the same way by benumbing the brain,

would it not?

A. To some extent.

Q. And after the brain was benumbed the heart would be weakened, the blood would not be propelled with its usual force, and congestion would be the result?

A. Yes, sir.

Q. The same route would be pursued by the poison pus after it got into the blood, as by the poison



morphine? A. To a certain extent. Q. You say to a "certain extent," what difference is there in the route? A. The difference in the route is this, that after the brain becomes poisoned by pyæmia, we have a certain set of symptoms which tell unmistakably the source of the poison.

Q. Suppose pus in the stomach were absorbed by the absorbents, it would pass through the same route as you described for the morphine, would it not? A. It would not be absorbed. Q. I have put it into the absorbents already? A. Well, I suppose it would. Q. Would not this effect be produced in the same way? A. The poison would be carried in the same way. Q. Would not its effect upon the system be substantially the same? A. It would develop symptoms which are well-known to be indications of poisoning by pus. Q. And if the absorption should take place from some other part of the system than the stomach, it would pursue substantially the same course, would it not? A. Yes, sir. Q. Its effect substantially the same? A. Yes, sir.

Q. How do the symptoms of poisoning by pus differ from those of morphine? A. In pyæmia, the first symptom is a continuous chill, and excessive sweats day after day, and night after night, and as the system becomes more poisoned, the matter is deposited in different parts of the body, especially in the liver; in post-mortem, from pyæmia, you have the liver usually diseased. Q. Is that invariable? A. Not invariable, no, sir. Q. Are the cold sweats invariable? A. I think they are, sir. Q. Through how many days and nights? A. From four to twelve days.

Q. Have you ever known a case that proved fatal in less than four days? A. No, sir. Q. Have you ever known a case at all? A. Yes, sir. Q. How many? A. A great many, *I don't know* how many.



Q. Where was the original seat of the pus in these cases? A. In the womb. Q. Have you known any cases where the pus was produced elsewhere than the womb? A. At the present moment I do not recollect any other case in my own practice. Q. Would not the duration of the disease depend upon the virulence of the pus? A. To some extent, yes, sir. Q. Any other symptoms in pyæmia? A. None than those I have mentioned; the brain is not usually much affected. Q. Why should the brain be not much affected? A. *I don't know, sir.* Q. Your *expertness* does not extend to that? A. No, sir.

Q. Do you know the chemical composition of pus? A. I don't recollect, sir. Q. Do you know whether it is constant, always the same? A. Yes, as far as I know. Q. Is there carbon in it? A. *I don't know, sir.* Q. Are you familiar with the office of the gall bladder? A. Yes, sir. Q. What is its office? A. It is a receptacle for bile. Q. Does it communicate with the liver? A. Yes, through the cystic duct, which joining the hepatic duct from the liver, forms the common duct that empties into the bowels. Q. Are there any absorbents about these ducts? A. *I don't know* that there are. Q. Do you know that there are not? A. No, sir.

Q. Your *expertness* does not reach to that; how is it about the gall bladder; are there any absorbents about that? A. *I don't know* that there are. (*Appendix l.*) Q. Do you know that there are not? A. No, sir. Q. Are there any about the liver? A. Yes, sir. Q. If there are absorbents about the gall bladder, is there anything to prevent the absorption of the pus you found there? A. Yes, sir, lack of ulceration. Q. There could not be absorption without ulceration? A. I think not.

Q. How then could there be absorption from the stomach without ulceration? A. Because there are



absorbents there. Q. Yes; but we are supposing that there are also absorbents in the gall bladder? A. They would not absorb pus as such. Q. How then would they absorb it? A. It is changed in character. Q. Changed to what? A. *I don't know, sir.* Q. How then do you know it is changed? A. Simply from reading. Q. How is it absorbed; what does it become? A. *I don't know, sir.* Q. What is pus, not as chemically, but as physically composed; is it a fluid? A. It is globules floating around in serum. Q. Is not the serum of pus absorbed? A. Sometimes, yes. Q. Has not that malignant properties? A. No, sir; I think not.

Q. When you have pyæmia from pus in the womb, what is absorbed? A. Pus. Q. But pus is not absorbed as such? A. As pus, no sir. Q. Well, what is absorbed? A. *I don't know, sir.* Q. Supposing that there are absorbents about the gall bladder, is there anything to prevent that change coming over that pus, and it be absorbed the same as if it were in the womb? A. *I don't know* that it is absorbed. Q. Yes, but there is nothing to prevent that pus causing pyæmia if it is absorbed? A. *I don't know* of anything. Q. The burning and intense pain in Mr. Coates' stomach, could not have been caused by the morphine, could it? A. No, sir, I do not think it could.

The Court here adjourned until Tuesday, December 6th, at 10 o'clock A. M.

On the second day of the trial, the Court was opened in usual form, at ten o'clock, with Dr. Wilkinson still upon the stand. The cross-examination was resumed by Mr. Dixon.

Mr. Dixon: Have you found out yet the chemical composition of morphine?

Dr. Wilkinson: No, sir.



Q. Or of pus? A. No, sir. Q. Or of bile? A. No, sir. Q. Have you any correction to make in your testimony in reference to the course of the contents of the stomach through the system? A. No, sir. Q. Do you know what the thoracic duct is? A. Yes, sir, it is a duct for the reception of the chyle; it passes up along the spine and terminates in the left sub-clavian vein. Q. Has that anything to do with the route of the contents of the stomach? A. Not directly. Q. Has it indirectly? A. That is to say the chyme, food, being reduced to chyle, passes into the bowels, when the absorbents take it up, and carry it into the circulation. Q. Do you mean none of the contents of the stomach pass into the thoracic duct until after entering the bowels? A. I do not think they do.

Q. Then the contents of the stomach, when absorbed directly from the stomach, pass from the absorbents into the capillaries? A. Yes, sir, what is absorbed does. Q. That portion of the food taking a different route from the other? A. Yes, sir. Q. Have you ascertained yet whether there are any absorbents about the gall bladder? A. I have not looked the matter up. Q. Are you familiar with Sharpey and Quain's work on anatomy? A. I have seen it; I am not familiar with it. Q. Is it standard? A. Yes, sir. Q. These absorbents are sometimes called lymphatics, are they not? A. Yes, sir. Q. From their contents? A. Yes, sir.

A page of the work on anatomy was here turned to, which states that the lymphatics, or absorbents, of the gall bladder are very numerous.

Q. Have you ascertained whether the serum of the pus is poisonous or not? A. I have not looked at it since yesterday, sir; I hold to the opinion it is not. Q. On what is your opinion based? A. Because serum is innocent. Q. On what is your opinion based;



have you ever tried it? A. No, sir. Q. If it were innocent could it produce pyæmia? A. No, sir. Q. Are you familiar with Jones and Sieveken's Pathological Anatomy? A. No, sir. Q. Have you seen it? A. Yes, sir. Q. Do you know anything of it as an authority? A. No, sir. Q. Is it American or European? A. *I do not know* anything about it.

Q. Suppose you should find in that book, page 146, these words: "Pyæmia may take place from the absorption of the serum of pus alone. Lebert found by experiment, that the injection of the serum of pus into the blood of animals, killed as quickly as the injection of pus itself." Would you not then believe, that the author of that book, did not think the serum of pus to be innocent? A. I should think so. Q. If it be possible for pyæmia to take place from serum alone, can it be innocent? A. Grant that is proved, it may not be. Q. Suppose the books to say, "Because it is clear this may easily take place, wherever capillary vessels are in contact with puriform exudations"? A. That is not very definite.

Q. If it be true that pyæmia occurs, wherever the capillaries are in contact with puriform exudations? A. What is a puriform exudation? Q. I am not on the witness stand, if you please, sir. A. You tell me, and I will answer. Q. Do you not know what a puriform exudation is; do you not know; yes or no; if you do not know, then I will tell you? A. Yes, sir, I know. Q. What is it? A. It is an exudation like pus. Q. What is exudation? A. It is a flowing out. Q. If the capillary vessels be in contact with these exudations, and pyæmia may take place from contact alone, is it not clear that serum is not innocent? A. I am not prepared to answer that. Q. Why not? A. I do not understand the sentence.

Q. (Handing book to witness.) Read what he says, and then say if he does not mean that serum may be



malignant? A. (After reading the place alluded to.) Yes, I should judge so from what he says, that he considers it such. Q. There can be no doubt about that? A. No, sir. Q. Your idea was, that the poisonous matter of pus was in the globules? A. Yes, sir. Q. Is there anything to prevent the lymphatics or absorbents around the gall bladder taking up these globules? A. As pus? Q. Is there anything to prevent the lymphatics or absorbents around the gall bladder absorbing the globules? A. The globules of what?

Q. Of the pus? A. Yes, sir. Q. Why not? A. *I don't know.* Q. Why do you say they cannot do it? A. *I do not know, sir;* the authorities are not plain on that. Q. What part of the pus is it that the absorbents do take up when they produce pyæmia? A. *I do not know.* Q. Pus consists of globules and serum? A. Yes, sir. Q. Your idea is that serum is innocent? A. Yes, sir. Q. How does pyæmia arise? A. *I do not know;* I only know it does. Q. It is not known whether from the absorption of the serum or globules? A. It is not from the absorption of the globules. Q. How of the contents of the globules? A. *I don't know, sir.*

Q. Could there be absorption of the contents of the globules, without an absorption of the globules? A. *I don't know.* Q. Do you mean to say that *experts* generally are not somewhat familiar with the process by which pyæmia is produced? A. I believe it is not known positively how it is produced, any more than how arsenic or morphine is poisonous. Q. Is it not pretty well known how morphine is poisonous? A. We know its effects. Q. Don't we know the route it takes? A. Yes, sir, but we do not know how it kills. Q. Is it not equally possible to know how pus produces its effect? A. We do not know how; no, sir. Q. We know it does poison? A. Yes, but we



do not know the ultimate process. Q. Your idea is that you are quite sure, the absorbents do not take in the globules? A. Yes, sir. Q. And the globules are the only poisonous part of the pus? A. That is my idea.

Q. How do you reconcile this conflict of ideas. You think pus may produce the disease? A. Oh, yes. Q. If there be absorbents around the gall bladder, then pyæmia may as well be produced by pus in that gall bladder as anywhere else? A. If there is ulceration. Q. Could there be a formation of pus without ulceration? A. Yes, sir. Q. How? A. By being shut up, and undergoing changes. Q. The bile might become pus? A. Yes, sir. Q. What would prevent the lymphatics taking it? A. I do not think they would take it up without ulceration. Q. Why not? A. Because they are closed; bile is not absorbed from the gall bladder. (*Appendix m.*) Q. It is not accustomed to be there without an outlet? A. No, sir. Q. If so, nature would try to get an outlet? A. Yes, sir.

Q. Would not the absorbents become the outlet? A. No, sir, it would dry up in toto. Q. How can it dry up without being absorbed? A. *I don't know.* Q. You know of cases where it has disappeared? A. I have read of a case where it disappeared.

Q. Your testimony in reference to post-mortem appearances of the body, was from notes taken at the time? A. Yes, sir. Q. You had these notes upon your examination at the Inquest? A. I read them to the Coroner's Jury there. Q. Your testimony then was based on the same foundation as here? A. Yes, sir. Q. Where was the post-mortem held? A. At the house. Q. Was there any thermometer in the house? A. *I don't know.* Q. You say the thermometer was about 80°; what do you judge by? A. I stated yesterday, the report was written by Dr. For-



man. Q. Your testimony was from the notes? A. I stated yesterday what I read. Q. How was that to be distinguished from recollection? A. I said what I was about to read was written by Dr. Forman. Q. Then you read the post-mortem? A. A part of it.

Q. How much of what you read was from your recollection; do you recollect the thermometer was at 80°?

A. *I do not know* how high it was. Q. The temperature of the room might vary the post mortem appearances of the body?

A. *I do not know* that it would. Q. Why then did you fix upon the temperature?

A. I did not fix upon it. Q. Why did Dr. Forman?

A. *I don't know*. Q. The body had been upon ice?

A. I think it had? Q. How long?

A. *I don't know*. Q. How long before the post-mortem was it removed from the ice?

A. Just before. Q. Would not that produce a variation in the post-mortem appearances?

A. *I don't know* that it would. Q. You speak about the *rigor mortis*;

could you distinguish between the rigor mortis and the effects of the ice?

A. Yes, sir.

Q. What do you mean by the rigor mortis?

A. The stiffness of the muscles. Q. How would you distinguish between the effects of the ice, and the rigor mortis?

A. The ice would affect the outer surface, but not make the muscles rigid.

Q. It might?

A. I do not think it would. Q. Don't you think it might?

A. I don't think it would; it might. Q. Possibly what you call rigor mortis, might have been the effects of the ice upon the body?

A. I think not. Q. Is it not possible?

A. Not altogether; no, sir. Q. Why not?

A. Because I do not think the muscles would be so rigid. Q. Do you think ice would have any effect on the rigidity of the muscles?

A. Oh, yes, some.

Q. Where was this florid congestion?

A. I do not recollect; the post-mortem being committed to paper,



I did not commit it to memory at the time. Q. Was there any portion of the body where there was no florid congestion? A. I do not recollect. Q. How was that produced? A. By the blood settling there, owing to the belladonna which we gave before death, sending the blood to the surface. Q. Did the pupil of the eye contract after that? A. It did not. Q. Was the cranium in this case large or small? A. Rather large. Q. You say on a section of the scalp there was no flow of blood; was that unusual? A. No, sir. Q. In what part of the body is the cerebellum? A. Near the inner surface of the skull.

Q. What is the dura mater? A. It is the inner lining of the bone. Q. Where is the arachnoid? A. It is a serous membrane between the dura mater and pia mater. Q. What is the pia mater? A. A branch of blood vessels; a net work of blood vessels. Q. Are there any blood vessels in the arachnoid? A. No, sir. Q. Any in the dura mater? A. Yes, sir. Q. Did you not in your examination before the Coroner say there was a marked venous congestion of the vessels of the arachnoid? A. I will correct my statement; there *are* vessels in the arachnoid. Q. Was there then that symptom, a marked venous congestion of the arachnoid? A. From recollection I cannot say. Q. Where is that memorandum you had? A. I left it at home.

Mr. Dixon: That is not fair for my client to use such a paper upon your direct examination, and then leave it at home, so as not to give us the benefit of it upon our cross-examination. (The witness here began to search himself for the paper, and finally found it in his pocket.) Q. Tell us whether you find in that paper the statement, that there was a venous congestion of the vessels of the arachnoid?

The Court: Was the question in reference to the testimony before the Coroner's Jury or yesterday?



Mr. Dixon : It is now in reference to the body at the time of the death.

A. I do not see any such statement here, sir. Q. Did you sign your deposition? A. That was made before the Coroner; yes, sir, I acknowledged it; I do not see it here, sir. Q. (Handing witness his deposition before the Coroner.) Look at that and see if it is a part of your deposition before the Coroner? A. This is not signed, sir. Q. Look further down, down towards the end. A. It says "being re-examined."

The Court : Look at it and speak as to your recollection of what is there stated?

Witness (discovering his name): Oh, yes, I signed it.

The Court : Did you speak of the congestion?

A. I do not remember whether I did or not. Q. This is headed as being notes of the post-mortem examination taken by you and your confreres? A. *I do not know*, sir, whether it is or not. Q. Is any portion of that report your hand-writing at all? A. No, sir. Q. You now say from your notes the congestion was in the dura mater and the pia mater? A. Yes, sir.

Q. Could there be a venous congestion of the arachnoid? A. Not very apt to be; no, sir. Q. What do you suppose was the cause of the flattening of the convolutions of the brain? A. *I do not know*, sir. Q. Is that normal? A. They were more flattened than ordinary. Q. Can you give any hypothesis as to the cause? A. My idea is, it was caused by the excitement in the first place; during the state of excitement the blood rushed to the head; it is a matter of no importance. Q. Do you think it was of no importance at all in your diagnosis? A. Yes, sir. Q. You say there was serous effusion along the veins; whence did that effusion come from? A. From the veins themselves. Q. It was serum from the blood then, was it? A. Yes, sir. Q. How did it escape



from the veins? A. From pressure on the veins. Q. Was a rupture of the vessels necessary? A. No, sir.

Q. How did you ascertain the brain was firm? A. By putting my hand on it. Q. Any other experiment? A. By taking it out and handling it, and by cutting it. Q. How much did you cut the brain? A. A good deal. Q. How much? A. Right down through. Q. Cut more than once? A. Sliced right through; cut to the cerebellum from the cerebrum. Q. How many pieces? A. Horizontally down to the ventricle. Q. Are there two ventricles in the brain? A. Yes, sir. Q. Did you cut into them? A. I think so. Q. Are you sure? A. I am not sure; I do not depend upon memory in post-mortems. Q. Are you sure you cut the cerebrum? A. Yes, sir, I do recollect that. Q. Did you cut the cerebellum? A. I am not sure about that; I think I did.

Q. Did you find any serum in either of the ventricles of the brain? A. Yes, sir. Q. Which one? A. I think the left. Q. Did you measure it? A. No, sir. Q. How much did you *guess* there was? A. *About* half an ounce, we thought. Q. Was that abnormal? A. More than ordinary; yes, sir. Q. Could that have had any tendency to cause death? A. Of itself? Q. Yes. A. I think not; it was part and parcel of the congestion. Q. Do you know any thing about serous apoplexy? A. Yes, sir. Q. What is it? A. It is when we have a large exudation of the serum from the blood vessels of the brain. Q. Is it necessary, for that to be large, to produce apoplexy? A. Yes, sir. Q. May not its location have very much to do with its fatality; may not a much smaller quantity be fatal in some parts of the brain than others? A. *I do not know, sir. (The witness is now rusty in his pathology. A very small effusion in some parts of the brain would be quickly fatal.)*



Q. Are you familiar with the disease called arachnitis? A. Yes, sir. Q. What is that? A. Inflammation of the arachnoid. Q. Do you know what meningitis is? A. That is part of arachnitis. Q. Is that the same disease? A. Part of the same; yes, sir. Q. Were there any symptoms of that? A. Before death? Q. No, after death, upon post-mortem. A. No, sir. Q. The presence of serum, was not that a symptom? A. It is only one; in arachnitis we have a large amount; the arachnoid fluids surround the arachnoid itself. Q. What have you in arachnitis that you have not in this? A. The arachnoid was not inflamed. Q. Are you sure? A. I am quite sure. Q. Did you not say that you did not recollect? A. I am quite sure *now* on that point.

Q. Did you not say there was no venous congestion of the arachnoid? A. I do not recollect *now*. Q. If you do not recollect whether there was venous congestion of the arachnoid, how do you know there was no inflammation there, as one is only a degree of the other? A. I simply recollect the latter. Q. Was your attention called to it? A. My attention was called to every part. Q. In your examination before the Coroner, do you remember that you stated anything, about the presence of *bloody serum*, in any portion of the brain? A. Yes, sir, I said there was none to the best of my knowledge. (*The witness is now rusty in his MEMORY. The post-mortem report, as read by his own lips before the Coroner, stated that the left ventricle contained about half an ounce of BLOODY SERUM.*)

Q. The choroid plexus, where is that? A. It is situated by the side of both of the ventricles. Q. What was its condition? A. I forget. Q. Was there any other notes taken of the post-mortem besides yours? A. I did not take any; *I don't know*. Q. Did you gather anything from the fact that the right



ventricle was empty, and the left contained serum?

A. Nothing special; no, sir. Q. The man was pretty

fleshy, was he not? A. Yes, sir, quite so. Q. You

found an inch and a half of fat on the chest? A.

Yes, sir. Q. Was the heart fatty? A. I don't rec-

ollect. Q. Did you examine with a microscope at

all? A. No, sir. Q. Is not that necessary to ascer-

tain whether the heart be fatty or not? A. Well, if

the heart be fatty we can see it by natural obser-

vation. Q. Can you, always? A. No, sir. Q. There

may be fat and the eye not detect it? A. Yes, sir,

to a certain extent. Q. The presence of fat in the

heart would diminish its force? A. Yes, sir. Q. It

tends to stagnation and venosity of the blood, and con-

gestion, and apoplexy? A. Yes, sir, to a certain

extent.

Q. What do you gather from the enlargement of the liver? A. It is simply a mark of congestion.

Q. You think it was simply a swelling of the vessels?

A. Simply due, I thought, to the enlargement of the

blood vessels there. Q. Was the liver cut? A. Yes,

sir. Q. Did you find an unusual amount of blood

there? A. Yes, sir. Q. Was the gall bladder itself

swollen? A. I do not think it was. Q. Did you

weigh the heart? A. No, sir. Q. Did you measure

it? A. No, sir. Q. Was it larger than usual or not?

A. I do not recollect now, sir; I do not think it was.

Q. Is it not important to notice the size of the heart

when a matter of congestion is being considered; is

it not one of the means by which congestion is to be

determined as the cause of death? A. Yes, sir; but

we depend on another cause; if we do not find that

cause present, it is necessary to make further inquiry.

Q. May it not be from a number of causes working

together in the system? A. Yes, sir, it may.

Q. When you are investigating the cause of death

where you see congestion is the proximate cause, should



you not pursue the line of investigation to each one of the remote causes? A. Yes, sir, certainly. Q. Why should you not see whether the heart is large or small? A. In the first place it was not fatty. Q. You say it can be fatty, and not visible to the naked eye? A. Yes, sir, but not to a great extent. Q. May it not be to a certain extent sufficient to impede circulation, without being visible to the naked eye? A. I think not. Q. Not to a degree? A. Yes, to a degree. Q. Is it not possible that the presence of these venous clots in the heart were the cause of congestion, rather than the result? A. I think they were the result. Q. Is it not possible they were the cause? A. No, sir. Q. Might there not be a physical obstruction of the heart which would produce it? A. There was not? Q. *Might* there not be? A. There was not. Q. *Might* there not be? A. No, sir. Q. No physical cause was present? A. There were not any signs. Q. Could there possibly be any physical cause to prevent the action of these functions of the heart? A. No, sir. Q. Suppose you should stop the circulation? A. That would be mechanical cause enough. Q. To produce that effect? A. Yes, sir. Q. Suppose for some reason the heart should be stopped with a clot of blood? A. If a clot be produced in the heart? Q. It might stop the operation? A. Yes, sir. Q. In your investigation of the heart you took it out and handled it and cut it? A. Yes, sir.

Q. What is the pleura? A. It is the external lining of the lungs. Q. The adhesion of the pleura to the walls of the lungs restricts the action of the lungs? A. To a certain extent. Q. Its tendency would be towards congestion, would it not? A. No. Q. When you restrict the operation of the lungs don't you, to some extent, restrict the arterialization of the blood? A. Some. Q. Would it produce venosity, and so congestion? A. A little. Q. Does it not tend that way?



A. A little. Q. Must it not from the nature of things tend in that way? A. Some. Q. The adhesion here was very considerable, and very firm? A. Very firm. Q. So that it produced physical distortion, flattening of the chest? A. No, sir. Q. What was the cause of the flattening? A. I don't remember. Q. Don't remember the chest was flattened? A. No, sir. Q. Investigate your notes on that point, will you, Doctor? A. I don't see it stated here, sir.

Q. Do you know Dr. Forman's hand-writing? A. I would not swear to it. Q. Do you know whether this is it or not? A. I do not, sir. Q. Would the size of the liver interfere at all with the respiration? A. No, sir. Q. What is the office of the spleen? A. *I don't know*; it is a safety valve, supposed to be. Q. The closing of the cystic duct could not have been organic, could it? A. Not very well; no, sir. Q. And the collection of the pus then, must have resulted from its being closed for a considerable length of time? A. Yes, sir. Q. The absorption of any of that pus, that mysterious pus, if it produced pyæmia, would have some tendency towards congestion? A. Yes, sir. Q. The structure of this man's body tended towards congestion, did it not? A. *I do not know* that it did.

Q. Was he not such a subject as you generally find apoplexy in? A. If short in the neck he would be. Q. He was short in the neck and stout? A. Yes, sir. Q. Was there much of anything in the stomach? A. I do not recollect how much. Q. Did you make an effort to detect the contents? A. To detect; what do you mean by that? Q. By smell or otherwise? A. We cut into it; it was yellowish. Q. Was there any smell? A. I do not recollect that I smelled of it. Q. What was the condition of the blood in the lungs at the time of the post-mortem? A. The lower portion of the left lung was the most congested, owing to the position of the body in dying. Q. When you took



the stomach out of the body what was done with it?

A. It was put into a jar. Q. You think it was taken

directly from the body and put into a jar? A. To the

best of my knowledge; it is possible we may have taken it out and cut it, after putting it in. Q. What was

done with the jar? A. I think it was handed to the

Coroner sealed. Q. How sealed; with wax? A. I

think with wax; I did not do it myself. Q. Did you

see it done? A. I think I did; I am not positive.

Q. This serous effusion you speak of in the brain, was it between the arachnoid and pia mater, or one

side of the pia mater? A. Both, I think. Q. Did

you ever make a post-mortem examination of one who

died of apoplexy? A. Yes, sir. Q. What is the

feature about this post-mortem examination that satis-

fies you, that death was the result of poison by mor-

phine? A. From the post-mortem alone I should

be unwilling to swear he died from morphine.

(*Appendix n.*) Q. What other disease might

have produced the same post-mortem appearances?

A. *I do not know* of any disease, sir; only universal

congestion? Q. What might have produced universal

congestion? A. *I do not know, sir.* Q. Why would

you not have concluded from the post-mortem alone

that this man did, or did not die from morphine? A.

From the ante-post-mortem appearances? Q. Why

would you not have been satisfied of the cause of death

from morphine, from the post-mortem alone? A.

Because morphine leaves no visible traces behind, ex-

cept the congestion of the vessels.

Q. Can any other cause produce the same effect?

A. I presume so. Q. What else? A. *I do not know*;

anything that would produce universal congestion

would produce the same effects in this case. Q.

Would not apoplexy produce congestion? A. Yes,

but in that you have unmistakable evidence of apo-

plexy in the brain. Q. Are you sure you must have



post-mortem evidence of apoplexy in the brain? A. Yes, sir. Q. What are the evidences? A. A large amount of serum or blood. Q. Is Watson's Theory and Practice of Physic a reliable authority? A. Yes, sir. Q. Suppose you find this:

Mr. Dixon here read from the work alluded to, page 332, the following sentence: "In the second place the apoplectic coma may terminate more or less quickly in death. On examining the brain we may find a large quantity of extravasated blood spread over its surface or lying within its broken substance; or second, a considerable effusion of serous fluid collected within its ventricles; or we may detect *no deviation whatever* from the healthy structure and natural appearances of the organ. Dr. Abercrombie has given to that form of apoplexy, which destroying life, leaves no traces behind, the name of *simple* apoplexy. Where blood is found the name is sanguineous apoplexy. Where serum alone, it is serous apoplexy."

Q. How does that strike you, Doctor? A. We do not term it apoplexy when there is no effusion. Q. This Dr. Abercrombie is a very good author; one of the lights of the medical profession? A. Yes, sir. But it does not make me think so; a person under those circumstances might die of a shock to the nervous system; that is my idea.

Q. What is the author's idea when he calls it "simple apoplexy"? A. *I do not know.* Q. Can you gather from this description the cause of death? A. Yes, sir; that he died of shock. Q. By apoplexy you mean what? A. The rupture of a blood vessel. Q. Do you mean that always? A. Yes, sir. Q. Whether there may be no blood in the brain, but simply serum? A. Yes, one might die of serous apoplexy without any effusion of blood. Q. Is not apoplexy divided into simple, sanguineous, and serous apoplexy? A. We are not usually in the habit of doing it.



The Court : I would suggest you get from the witness good authorities on the subject.

Mr. Dixon : Pereira's Elements of Materia Medica and Therapeutics ; is that good ?

A. Good.

Q. Practice of Medicine, by Tanner ? A. Good, yes, sir. Q. Gardner's Chemistry ? A. I am not familiar with that ? Q. Wood's Therapeutics ? A. Good. Q. Carpenter's Principles of Human Physiology ? A. Good. Q. Do you think they are as reliable as Dr. Wilkinson on apoplexy ? A. It might be so.

Q. Ordinarily, would a grain of morphine produce death ? A. *I do not know, sir.* Q. Ordinarily, would half an ounce of laudanum produce death. A. I should judge it would. (*Appendix o.*) Q. Have you ever known it to ? A. No, sir ; I never knew half an ounce to produce death or be taken, except by the opium eater of whom I spoke yesterday, who used to take it in larger quantities than that. Q. To which school of medicine do you belong ? A. Well, I belong to what is ordinarily termed the Allopathic. Q. To which does Dr. Lund belong ? A. I believe the Homœopathic. Q. The feeling between these two schools is not ordinarily an amicable one ?

Objected to ; objection sustained.

Q. I will ask whether these schools are not antagonistic schools of medicine ? A. In what respect ? Q. In their principles and method of practice. A. I believe they are. Q. Dr. Lund's field of practice was about co-extensive with yours ? A. I believe so. Q. Occasionally patients of yours have ceased to employ you, and have employed him ? A. *I do not know* whether they have or not. Q. Do you know any case of that kind ? A. I do not recollect any at the present moment. Q. Have you been in the habit of meeting him in medical consultation ? A. No, sir.



Q. The Allopathic School does not consent to meet the Homœopathic School in consultation? A. No, sir. Q. They scarcely recognize them as physicians? A. *I do not know* how that is? Q. You do not? A. I do not meet them in consultation. Q. You decline to meet them in consultation? A. Yes, sir. Q. On what ground? A. According to our rules in ethics. Q. What do you mean by "our rules"? A. The Allopathic code of medical ethics. Q. It is a part of the Allopathic ethics not to meet them in consultation? A. Yes. Q. What is your object in observing the rules? A. Because I promised to obey certain rules. Q. Blind obedience without any purpose? A. It is a rule I agreed to follow, not to consult. Q. Are you in favor of the rule? A. Yes, sir. Q. For what cause? A. Our systems are different as far as I understand it; it would lead to nothing but conflict of opinion. Q. You think you would not be likely to agree at all? A. No, sir. Q. You could not give each other any light at all? A. *I do not know* about that.

Q. You were present at Mr. Coates' house, when Dr. Lund came there that morning? A. Yes, sir. Q. Did you see him approach the house? A. I can not say now whether I did or not. Q. Who was in the room with you? A. At the time? Q. Yes, sir. A. Dr. Forman, Dr. Bock, and Mr. Welch, and I think Haslett; that is all I recollect. Q. Do you recollect saying anything to the physicians there assembled, at Dr. Lund's approach, in reference to paying no attention to him when he came in? A. No, sir, I do not. Q. Was anything of that kind said? A. I do not remember. (*Appendix p.*) Q. Don't remember whether anything was said or not? A. No, sir.

Q. Did you take possession of the two powders of morphine which were left after Mr. Coates died? A. I took possession of one. Q. Who took the other?



A. Dr. Forman. Q. What did you do with the powders? A. Dr. Forman and I wet our fingers, and put them in and tasted of one. Q. Which one did you taste? A. To the best of my knowledge the one I took. Q. What did you do with it after tasting? A. Put it in my pocket-book. Q. What then? A. Took it with me. Q. How long did you keep it in your pocket-book? A. Several days; *I do not know*. Q. What day did you get it from Mr. Wells? A. I do not recollect.

Q. How many days after Coates' death, did Mr. Cook weigh it, or Wells' clerk? A. *I do not know* how long it was. Q. Those scales were the ordinary scales in dispensing drugs? A. *I do not know*, but believe they were. Q. Mr. Wells is a druggist on Monticello Avenue? A. Yes, sir. Q. You send prescriptions there to him? A. Yes, sir. Q. When you came in and asked Mr. Cook to weigh the powder, what did you say? A. I do not think I made any remarks, none that I remember. Q. Simply asked him to weigh it? A. To the best of my knowledge. Q. Was it weighed? A. Yes, sir. Q. How large were those scales? A. They were small scales. Q. In a case by themselves? A. No, sir. Q. Where were they? A. Outside of the counter, behind a little screen which he had. Q. Did you go behind the screen? A. I went behind. Q. You were desirous of ascertaining the exact weight? A. Yes, sir. Q. You saw them weighed at that time? A. Yes, sir. Q. How much? A. Cook did not say how much; he could not weigh so small a quantity. Q. Was it any weight? A. A weight was put on the scales; he did not say how large a weight. Q. Was it not put on the scale, and a balance put on the opposite scale? A. I do not recollect. Q. Was you not looking? A. My opinion is it was. Q. Do you recollect what weight was put there? A. I do not.



Q. What were the scales made of? A. Brass, I presume, sir. Q. They were ordinary druggist's scales? A. Yes, but they were not in perfect condition. Q. How do you know? A. Because he said they were not. Q. Did he say what they needed to be put in perfect condition? A. No, sir; I asked him how he weighed morphine there; he said four grains at a time, and then divided by the eye for the quantity needed. Q. Is it common to divide morphine by the eye among druggists? A. I do not think it is. Q. Is it possible to divide it pretty accurately? A. You cannot divide it accurately. Q. How large in bulk would four grains be? A. Pretty large, sir. Q. It would cover what size coin? A. *I don't know, sir*; I never measured it that way. Q. Did you weigh the paper also on the scales? A. No, sir. Q. The paper was emptied on the scales? A. Yes, sir. Q. Then the powder was returned to you? A. Yes, sir, put back into the same paper. Q. What was done with it then? A. I put it in my pocket-book again. Q. How long after that was it weighed again? A. I cannot say, it was not the same day. Q. Who weighed it the second time? A. Mr. Gardner. Q. Where is that? A. On Monticello Avenue. Q. It lacked something of being a grain? A. Yes, sir. Q. Was it weighed with the paper there? A. No, sir. Q. Did you see it weighed? A. Yes, sir. Q. Were the scales correct? A. So Mr. Gardner said, sir.

Q. Do you think you could tell a grain from half a grain of morphine, by looking at it? A. I think I could; morphine is exceedingly deceptive in appearance, though. Q. If you had half a grain of morphine, and a grain, along side of each other, could you detect the difference in size? A. I think so. Q. Quite easily? A. I think so. Q. After you got it weighed at Mr. Gardner's, did you speak to Mr.



Cook about his weight? A. Yes, sir. Q. How soon? A. I do not recollect; one evening I was passing. Q. What did you say? A. I do not recollect; I recollect telling Mr. Wells. Q. Did you ask him whether he told any one about the weight of the powder? A. No, sir. Q. Did you tell him not to tell? A. No, sir; I told him to tell Mr. Wells. Q. Did you tell him it would hurt his drug store, if it got out that the powder weighed only half a grain there? A. I do not recollect. Q. What time of night was it when you were passing, and stepped in there? A. Quite late; it must have been ten or eleven o'clock. Q. Did you call the clerk outside? A. Yes, sir. Q. Why did you? A. To speak with him in reference to the matter; there was a number of people in the store. Q. Why did you think it important he should tell Mr. Wells? A. So he would have better scales. Q. Did you think they were not aware their scales were out of order? A. He did not know anything about it. Q. Did he not tell you about it? A. Mr. Cook told me at the time, he could not weigh so small a quantity. Q. What new light did you get? A. Simply I could not swear to the weight of this powder; if Mr. Cook had said it weighed half a grain, I should have been satisfied. (*Appendix q.*) Q. Did you not know, when you left Mr. Cook, you could not swear to the weight of it? A. Yes, sir; that is the reason I took it to Mr. Gardner's. Q. What reason did you have for telling Cook to tell Mr. Wells? A. No particular reason, simply a matter of information.

Q. Did you ever say to any one, that this transaction served Dr. Lund just right, and you hoped he would get his deserts? A. No, sir. Q. Anything to that effect? A. No, sir. Q. Did you advise Mrs. Coates to commence an action against Dr. Lund? A. No, sir. Q. Did you give her a letter of introduction to an attorney? A. No, sir. (*Appendix r.*)



Q. Did you ever tell any one, that there was enough morphine given to Coates to kill a hundred men ? A. No, sir.

Q. Do you recollect whether you told Cook, at the time the powder was weighed, that this was "one of the powders that killed Coates ?" A. I told him that this was one of the powders that Dr. Lund had prescribed. Q. At the time the powder was weighed ? A. I think he asked the question first.

Q. After Mr. Gardner had weighed the powder, what then became of it ? A. I put it in my pocket-book again. Q. What then ? A. I gave it to the Coroner.

Q. Did you ever see Dr. Forman's powder after Mr. Coates died ? A. No, sir. Q. You don't know what became of that ? A. No, sir.

Q. Who weighed the powder at Gardner's ? A. Mr. Gardner himself.

Q. Belladonna, you say, is an antidote for morphine ? A. It is considered so. Q. And the effects of the morphine are to produce the florid congestion of the surface, and the contraction of the pupil of the eye ? A. Yes. Q. I understand the effect of the morphine was to contract the pupil of the eye, and produce a livid condition of the surface ; that after you gave the belladonna, the effect was seen in the dilation of the pupil of the eye, and the florid congestion of the surface ; did not that indicate the belladonna had overcome the effects of the morphine ? A. No, sir ; it only indicated it had overcome the contraction of the pupil, as far as that is concerned. Q. And the livid condition of the skin ? A. That only showed an increase of the circulation of the blood. Q. Was not that in opposition to the effect of the morphine ? A. Yes, in opposition. Q. And that opposition was throughout the system ? A. I suppose so. Q. It must have permeated the system ? A. Yes, sir. Q. Showing, then,



the effect of the belladonna through the system had overcome the effect of the morphine? A. No, sir. Q. Why not? A. We know it had not, by the continued stupor. Q. That is, if the continued stupor was due to the morphine, you would know it; but if the stupor was due to something else than the morphine, then would it be any indication that the belladonna had overcome the force of the morphine? A. No, sir. Q. Certainly these effects were overcome by the belladonna? A. That contraction of the pupil was overcome. Q. So with the lividity of the skin? A. For the time being. Q. That florid suffusion of the skin continued until death, and dilation of the pupil? A. The dilation of the pupil did, but I do not recollect about the other. Q. Is there any reason why belladonna should overcome the effect in the pupil of the eye, and not the other effect? A. Oh! yes; that it may do. Q. How? A. *I do not know.* Q. How do you know it can? A. From experience; if the belladonna completely counteracts the poisonous effects of the opium, the patient wakes up out of the stupor, as far as I understand it. Q. The fact of the patient's waking up indicates what? A. That the poison has been neutralized. Q. That would be true when the poison produced stupor? A. Certainly. Q. But if the stupor were produced from other causes, would it not show it? A. No, sir.

Q. Can you think of any sound reason why the belladonna should overcome the force of the poison over the eye, and not overcome the other effects? A. I cannot tell you anything about its action; *I do not know* anything about it. Q. Is that contraction of the pupil never the result of any other cause of coma than narcotic poison? A. *I do not know* of any other that it is peculiar to. Q. No, I did not say *peculiar* to; is it never the result of anything else? A. It is not usually. Q. Is it not *sometimes*? A. *I do not*



*know.* Q. Does not morphine produce sometimes a dilation of the pupil? A. I have read it so.

Q. In your judgment what single item of the ante-mortem symptoms conclusively satisfies you that this trouble was the result of morphine? A. In the first place, the acknowledgment that morphine had been given; in the second place, the effects were all those of morphine.

Q. Were there any symptoms that exclusively belong to narcotic poison? A. The contraction of the pupil. Q. You think that belongs exclusively to narcotic poison? A. Yes, sir.

*Re-direct examination by Mr. Garretson:*

Q. What was this fluid stuff in the gall bladder? A. It was a dirty, milky fluid. Q. In what did it resemble pus? A. In its peculiar milkiness. Q. Could you tell whether it was pus or not? A. Not positively, without putting it under a microscope.

Q. If the cystic duct was closed and there were no absorbents in the gall bladder, how could this fluid get out? A. I do not know how it could get out. Q. If there were absorbents and the duct closed, how then could it get out? A. Be absorbed there. Q. What indication would there be in the gall bladder? A. No special one; if it was all absorbed, the gall bladder would contract. Q. If taken up by the absorbents, where would it be found? A. Throughout the circulation.

Q. Is there serum in the blood? A. Yes, sir. Q. How does that differ from serum in the pus? A. *I do not know.* Q. Is there a difference? A. *I do not know.*

Q. If you had not seen this man before his death, and upon the examination of the contents of the stomach had found morphine, what would have been your conclusion? A. That congestion was due to the morphine probably.



Q. What symptoms of pyæmia did you see ? A. I did not see any. Q. Before his death ? A. I did not see any.

Q. You are acquainted with Christison on Poisons ? A. I am. Q. Is that a good work ? A. Yes, sir.

*Re-cross examination :*

Q. If you had been called to see Mr. Coates, and had found him suffering from intense pain in the head, would you not have thought morphine a proper prescription ? A. That would depend upon his general condition. Q. On what in his general condition ? A. It would depend upon how he was in other respects ; if he was suffering from congestion, it would not be a proper remedy, even though he had pain. Q. Suppose you had seen no symptoms of congestion ? A. And still suffering from pain in the bowels ? Q. Pain in the bowels and head ? A. I do not think I should have given morphine on account of pain in the head ; without pain in the head, I should unhesitatingly have given morphine.

Q. You found trouble in the bowels ; at the post-mortem they were twisted ? A. The colon was loaded with fæcal matter, more than is usual.

Q. To what do you attribute this pain in the head from which Mr. Coates suffered ? A. *I do not know, sir.* Q. Your diagnosis did not extend to that ; you are unaware of any cause for that intense pain in the head ? A. I am not aware of any cause. Q. Are you aware of any cause for the swelling in the face and of the hands ? A. Except congestion ; no, sir.

WILLIAM BURNS,

Examined by Mr. Garretson, testified that he was one of the Coroners of the county, and was called upon in July last, by Dr. Lewis, to visit the house of the late John D. Coates. He reached there between nine and ten o'clock, and found the man not dead.



Q. What did you do then? A. The first thing I did was to inquire about the medicine; the family told me about the medicine, and I think Dr. Wilkinson offered me one of the powders, and Dr. Forman the other. Q. Were they both there at that time? A. Yes, sir. Q. At ten o'clock? A. Yes, sir; I sent for them. Q. They came when you sent? A. Yes, sir.

Q. What about the powders? A. I told Dr. Forman I would keep his; I told Dr. Wilkinson to weigh his, and see what it was. Q. What did you do with yours? A. I had mine weighed by Joseph A. Moore, of Jersey City. Q. Dr. Forman gave you that powder? A. Yes, sir. Q. You had it weighed at that time? A. That same day. Q. What did it weigh? A. A grain, strong. Q. What was done with it after weighing? A. I put it in my pocket. Q. How long did you keep it there? A. Until I got the other from Dr. Wilkinson. Q. When did you get the other from Dr. Wilkinson? A. I cannot say; perhaps a day or two. Q. After you got the second one from Dr. Wilkinson, what did you do with them? A. The Coroner's Jury recommended I should have a man examine as to the contents of the stomach; I took that over to Professor Doremus, of New York. Q. He was away at that time? A. He was at that time. Q. What did you do with the powders? A. I put the powders in a paper, and left the jar sealed, and left a note for him to subject them to a chemical analysis, and let me know when he could have them done. (*Appendix s.*) Q. When did you see Professor Doremus after that? A. It was over a month after that when he came over and gave his evidence before the Coroner's Jury. Q. Did you see him from the time you left the powders until he came over? A. No, sir; he wrote me a letter when he got the stomach, and when he would have them done. Q. He wrote that letter to you? A. Yes, sir.



Q. What was done with the body of Coates ? A. I ordered the doctors to make a post-mortem examination on the body, and find out the cause of his death, if possible. Q. Well, what was done ? A. They made a post-mortem—Dr. Wilkinson, Dr. Forman, and I think Dr. Bock. Q. When ? A. The same day ; I could not say the same day he died, or the next morning ; I gave them the order on that day.

Q. How soon, after you took the powders over to Dr. Doremus, did you hear from him ? A. The second day, I think. Q. By letter ? A. By letter. Q. Have you his letter ? A. I think so, down at my office.

*Cross-examination by Mr. Dixon :*

Q. Who weighed the one powder which you took with you ? A. The one powder was weighed by Joseph A. Moore, a druggist in Jersey Avenue. Q. You don't know the weight ? A. Not except by what he told me. Q. Did you know of your own knowledge what the weight represented ? A. No, sir ; I did not see its mark. Q. You only know what he said about it ? A. That is all. Q. That is the one Dr. Forman had ? A. That is the one Dr. Forman gave me. Q. When you went there about ten o'clock ; you say nine or ten ? A. I think it was not quite ten. Q. Who was there at the time ? A. The family were there, and I think the daughter and a man named Mr. Kelly ; a gentleman named Mr. Welch, I think ; I am not positive as to whether Mr. Welch was there or not ? Q. Anybody else ? A. I cannot now say whether the doctors were there at this time or not ; however, they were there a short time afterwards. Q. Were they sent for ? A. The gentleman who told me, said they would be there at ten o'clock. Q. What doctors came there at ten o'clock ? A. Dr. Wilkinson and Dr. Forman.



Q. After the doctors came there what did they do?  
A. I asked them if they did all they could; they said they did, of course; I asked how they gave the medicine, and I said perhaps it would not do any harm to try again; they took him to another room, got some clothing on, and tried medicine in different ways. Q. They wrapped him up warm? A. Yes, sir. Q. What medicine did they give him? A. I forget now. Q. Who gave the medicine? A. Dr. Wilkinson. Q. Did you see how he gave the medicine which he gave while you were there?

The Court: Did you say you saw him give medicine? A. I saw him send out of the room.

The Court: The question is did you see him give medicine? A. No, sir, I did not see him.

Q. Did you see him do anything but wrap him up warm? A. A. I did not. Q. Then that is all you saw? A. They might have done more. Q. How long did you stay there? A. I did not stay in the room very long, because the man was not dead and I had no authority there except by permission of the doctors. Q. Then you thought they were rather in a hurry to send for you; how long did you stay? A. It might have been half an hour. Q. How soon after did the doctors go away? A. I could not say whether they were there or not. Q. How long after ten did they stay? A. When I came away they were there. Q. Did they try any slapping while you were there? A. No, sir, they did not. Q. Or walking him about? A. They walked—no, they carried him into the room. Q. Simply carried him into the room and wrapped him up warm; did not drag him about? A. No, sir, not that I saw. Q. Did you notice how many blankets they put on to wrap him up warm? A. No, sir, I did not notice. Q. Was it a pretty warm day? A. It was, sir, a very warm day.

Q. Are these the notes of the Inquest? (Handing



paper to witness.) A. Yes, sir. Q. Where did you get this statement? (Alluding to the post-mortem report.) A. It was fetched into the Inquest by one of the doctors. Q. Do you recollect which one? A. No, sir. Q. Do you know whose hand-writing it is? A. It looks to me like Dr. Wilkinson's hand-writing; I do not know who wrote it; this was already written and read to the jury. Q. As the result of the post-mortem examination? A. Yes, sir. Q. Do you recollect who read it? A. I do not. Q. Were the doctors there when it was read? A. Yes, sir. Q. Which doctors? A. Dr. Forman was there and Dr. Wilkinson. Q. Any other? A. Dr. Bock; I could not say whether he was there at the time; he was there before; I handed him the evidence, written by one of the other physicians, and he looked over it and said he would corroborate it. Q. Did either of the other physicians who were there object to the result of the post-mortem; did they assent to it, or say it was wrong? A. It was corroborated by them.

DR. SAMUEL R. FORMAN,

Examined by Mr. Garretson, testified:

I am a practicing physician in Jersey City, and was called to see John D. Coates, in July last, early in the morning, I think about six o'clock. Q. What was he suffering from? A. Shall I describe his condition? Q. Yes, sir. A. I found him sitting in a high-back rocking chair, reclining in a comatose condition; deep, heavy sleep; unconscious; labored breathing; respiration, I believe, about twelve in the minute; pulse slow; skin cold, clammy and livid. Q. Well? A. The pupil contracted. Q. Anything else? A. These were all the symptoms I can recollect that were present at the time.

Q. Who was there when you got there? A. Dr. Wilkinson and the man, I think, Welch, who came for



me, and I think probably his wife; she was in and out every minute or two. Q. From your observations of the symptoms what do you suppose was the matter with him? A. I inquired into the history of the case a *little*, and was shown a powder such as he had taken a short time before, which was represented to me to be morphine; I tasted it. Q. What did you conclude from the taste? A. I concluded from the symptoms and the taste of the powder, that he was suffering from the effects of morphine.

Q. What was done for him? A. His treatment occupied continuously the whole forenoon; a variety of means were used to arouse him; first, an attempt was made to raise him up, but he could not walk nor stand. Q. Well? A. Then we attempted it by friction and mustard, by flagellation, and by exciting vomiting; that is all I think of now; we tried to administer medicine by the mouth, but he could not swallow; we sent almost immediately for some belladonna, which we administered by injection under the skin; we attempted cold effusions. Q. What else? A. None of these having perceptible effect except the belladonna. Q. What effect did that have? A. In a short time after its administration the lividity disappeared, and a florid congestion was observed to come over the face, and the pupil dilated. Q. How long did you remain with him? A. With the exception of from nine to ten, I was with him till he died, except about fifteen minutes I believe, when I went for an oxygen apparatus. Q. What time was that? A. I think it was a little after twelve. Q. Did you go back with the apparatus? A. Yes, I do not think I went into the house, because the man was dead; we also used electricity in the latter part of it, as the respiration flagged.

Q. You have spoken of the powder you tasted; what was done with the powder you tasted? A. I do not know what was done with the identical one; there



were two powders there, of which I took one and Dr. Wilkinson the other. Q. What did you do with the one you had? A. When the Coroner came I handed it to him. Q. Were you present at the post-mortem? A. I was. Q. When was that made? A. The next morning. Q. Where? A. At the house. Q. By whom? A. By Dr. Wilkinson and two or three others. Q. (Handing paper containing the post-mortem report read before the Coroner's Jury.) Look at these notes; whose hand-writing are they? A. I wrote them, sir. Q. Are those the observations made at the post-mortem? A. They are taken from the notes I made at the post-mortem, and from my recollection together.

Q. From your examination previous to the death of the man, and from the post-mortem examination, what did you conclude was the cause of his death? A. From the symptoms on the post-mortem examination, and the history of the case, I concluded he died from an over dose of morphine. Q. How soon after the post-mortem examination was that written out? A. I think the next day, sir; very soon after, at any rate.

Q. What is the usual dose of morphine? A. It depends upon the effect it produces upon the patient. Q. What is the largest dose you have known to be given to produce good effects? A. Four grains. Q. What sort of a patient was that? A. It was a woman who had just ruptured her uterus in confinement. Q. What was the effect of the dose? A. Simply to allay in some degree her pain. Q. Did the woman live? A. No, sir.

Q. What is the ordinary dose—you understand what I mean—between the extremes? A. From one-sixth to one-quarter of a grain; sometimes even larger, if in violent pain; it depends somewhat on the condition. Q. In what case do you give as large a



dose as a grain? A. It is hard to state in what cases; I can state the cases in which I have given it.

Q. Is it the usual dose? A. It is not an ordinary dose; it is an exceptional dose; it may be given. Q.

Is it administered, or usually administered, without seeing the patient? A. A grain dose? Q. Yes, sir.

A. I think not.

Q. What is the smallest amount of morphine that has been known to have proved fatal? A. I heard the testimony yesterday; I speak as much from my recollection of that as from any knowledge of my own; I cannot speak from my own experience. Q.

What is the smallest amount you have known? A. I do not know the exact amount; I cannot state it, it is so long since I have seen a case in which I knew the exact amount that was given.

Q. What kind of practice would it be to prescribe a grain of morphine in the absence of the patient?

Mr. Dixon here objected to the question. The Court overruled the objection, but gave Mr. Dixon the exception.

A. It would have to be under some very peculiar circumstances or extraordinary, under which any one would be justified in doing it.

Q. Would the growing together of the side of the lungs, spoken of in the post-mortem, have any effect in producing congestion in the head? A. None whatever; none that could be appreciated at all. Q. How long had that growing together probably existed? A. It is hard to say the exact time, but certainly several months; it might have been years.

Q. What disease was there about the lungs? A. Congestion? Q. What else? A. No other disease.

Q. What quantity of fluid was there in the gall bladder? A. I think about three or four ounces. Q. What was this fluid? A. It was a greenish-yellowish fluid, milky in appearance. Q. In what respect did



it resemble pus? A. Some in appearance, and under the microscope, exhibited globules.

Q. What effect would the absorption of that matter produce on the brain and lungs? A. I should suppose it would produce what is termed multiple abscesses.

Q. Anything else? A. Morbid irritation, I should think, and great depression.

Q. What is pyæmia? A. It is a disease resulting from poisoning of the blood by purulent matter.

Q. What are the symptoms of pyæmia? A. Great depression, rigors, fever, profuse sweats, prostration.

Q. What symptoms of pyæmia did you observe in the case of Mr. Coates? A. Perhaps none, unless I except that his body was frequently covered with perspiration.

Q. That was the only symptom? A. The only one.

Q. Is it possible to guess at the weight of morphine with any accuracy by pouring it out of a bottle? A. No, sir; not accurately.

The notes of the post-mortem examination were offered in evidence by the prosecution.

*Cross-examination by Mr. Dixon:*

Q. Have you ever seen a case of pyæmia? A. Yes, sir.

Q. Where was the source of the pus in that case?

A. I have seen several cases; the last case I saw, the source was in the leg.

Q. Where were the others?

A. I have seen it in the bowels, and I have seen it in the head.

Q. What other cases.

A. A variety; wounds, injuries, ulcerations, erysipelas, carbuncles.

Q. Could it not come from any collection of pus in the system?

A. If there is ulceration.

Q. If absorbed?

A. Not necessarily.

Q. I say may it not?

A. It might.

Q. Are you sure that ulceration is a necessary condition of absorption?

A. I am not sure about it.

Q. Have you ever seen a case where there was a collection of pus in the gall bladder, such as there was in this case



of Mr. Coates? A. No, sir. Q. You are satisfied there was pus globules in it? A. Yes, sir. Q. What part of the pus is poisonous in your estimation? A. I do not know, sir.

Q. Is it the serum? A. I do not know, sir. Q. Don't you know that serum is innocent; harmless? A. Pure serum is, yes, sir. Q. But the serum of pus? A. No, I don't know it. Q. Your opinion of the cause of this man's death was dependent, to some extent, upon the history of the case; from whom did you learn the history? A. From Mr. Welch; I think the gentleman who came for me, and those other persons that were in the room. Q. What did you learn of the history of the case? A. I learned that he was taken suddenly with the symptoms that we saw; that he had pains in the bowels—pretty severe pains in his bowels—before he had taken a powder. Q. Any other symptoms; any other facts of the history? A. I do not recollect any at present.

Q. Did you learn what the progress of the coma had been? A. Yes, sir, I think so. Q. What did you hear about that? A. It is hard for me to separate what I heard prior from what I heard since. I do not know that I can testify whether it was before I formed an opinion, or whether I heard it afterwards. Q. Well? A. I heard he had taken a powder sent by Dr. Lund, and he had woke up somewhat relieved and then gone 'off' into a comatose condition. Q. How long after he had taken the powder did he wake up? A. I do not know, sir, now; my impression is merely that he had an hour or two of sleep. Q. He had taken the powder, had slept, woke up, and then gone into coma? A. That was his last symptom of sensibility.

Q. Did you ever know of any case where a man had passed under the power of morphine, had aroused himself, and then relapsed and died? A. Yes, sir.



Q. What case did you ever know of that kind? A. It is not a very uncommon thing, I believe; it is not an universal result, but I cannot put my finger on the case. Q. How can you account for the awakening from unconsciousness? A. I cannot account for it; sometimes a man is aroused by external means. Q. But that is not the case I am talking about? A. I understood you to ask whether I knew of a case where they had been aroused. Q. I did not say *had been* aroused, but had aroused himself, had come out? A. I cannot swear to that, that I ever did know of a case. Q. Can you account, in such a state of affairs, upon the hypothesis that the medicine—the poison—which produced the first coma produced the second? A. I do not know that there was any first coma. Q. Well, we will have to look at the testimony again if you cannot account for it? A. I cannot account for it. Q. You have told us, Doctor, that you once gave four grains of morphine to a woman who had rupture of the uterus, and she died; did she die of the morphine? A. I did not say I had given it, I had seen it given. Q. Did she die of the morphine? A. No, sir, I think not. Q. Why was so much given to her? A. Because of the necessarily fatal nature of the disease, less would not have produced the effect. Q. What was the condition in which less would not have produced the effect? A. The great extent of pain. Q. Then you would to some extent regulate the dose by the extent of pain? A. Yes, sir.

Q. Suppose you were called to a man suffering extreme agony; would take a dose whether it killed or cured; he was going about the house wildly; squeezing his intestines; tearing his hair; holding his head; pressing his bowels; putting his hands on the table; would you think a grain of morphine was a dangerous dose? A. My first visit to him? Q. Yes. A. I would not give it. Q. Would you think it likely to



prove fatal? A. No, sir, I do not think it would prove fatal. Q. Would you prescribe half a grain under those circumstances? A. I might, yes, sir. Q. Would you think that a dangerous dose? A. No, sir, not if he was in that condition. Q. If you had been called to make this post-mortem examination of Mr. Coates, and had had no information of the history of the case, and been asked simply at the post-mortem as to the cause of death, what would your answer have been? A. I should say he died from venous congestion. Q. Would you have given the cause of venous congestion? A. No, sir.

Q. If you had been called to prescribe for Mr. Coates during the afternoon and evening of Tuesday, while he was suffering with intense pain, I believe I understand you to say that you might have given him half a grain; would you not probably have prescribed morphine to allay the pain? A. I do not think I would have given him half a grain.

By the Court: Would you have given morphine? A. I might; yes, sir.

Q. And it was a fair matter of judgment as to the amount to be given, was it not, when the man was suffering with extreme pain? A. Yes, sir. Q. You think the effect would have been unusual if death was the result from the half of a grain? A. Half a grain, yes, sir. Q. Would it be an unusual effect if the dose was a grain? A. Well, I think it is about on the boundary. Q. Between what is usual and what is unusual? A. Yes, sir. Q. It is scarcely fair to ask whether it is usual, but whether it is occasional, for physicians to discover that the medicine which they prescribe has an unusual effect? A. Sometimes. Q. And sometimes the unusual effect is even death? A. Yes, sir. Q. Have you not in your own practice had cases or a case where death might have been unusual? A. No, sir.



Q. Do you know Mrs. Baines? A. I had a patient who was represented to be the daughter of Mrs. Baines. Q. Were you called to prescribe for her? A. Yes, sir. Q. And you prescribed? A. Yes, sir. Q. Morphine? A. No, sir. Q. What? A. Opium, which is the base of morphine. Q. And the patient died? A. Yes, sir. Q. Died in coma? A. Yes, sir. Q. Is it impossible for that opium to have produced death in that case? A. Not impossible. Q. You made no post-mortem? A. No, sir. Q. You exercised your best judgment? A. Certainly, sir. Q. Usually how much morphine would produce death upon a man not in pain? A. I cannot state, sir. Q. Cannot state? A. No, sir. Q. How much would be usual if a man was suffering intense pain? A. How much would I give? Q. No, how much usually would be likely to cause death? A. It would take more to produce death if he was in pain. Q. Would a grain usually produce death? A. I do not know, sir. Q. Have not people recovered from the administration of much larger doses? A. Yes, sir.

Q. What is the most you have known of in your experience, or read of in the text books to be given to a person without fatal result? A. Or to be taken? Q. Yes, or to be taken without fatal result? A. I think I heard a case mentioned here yesterday of twenty-four grains. Q. Are there not cases in the books where thirty-nine grains have been given? A. I should think so. Q. So there is a pretty wide sphere for judgment as to the amount of morphine? A. I do not think that judgment would lead to thirty-nine grains. Q. Don't you think there would be a scope for judgment; you yourself have given four grains? A. Yes, sir. Q. Because of the pain? A. Yes, sir. Q. The judgment may range from one-sixth of a grain to four? A. Yes, sir. Q. But are there not cases in which the judgment may justify more



than four grains ? A. No, sir, I do not believe if you do not get an effect from that you can expect any.

Q. Nothing would produce stupor if that did not ? A. I should not expect it if that did not.

Q. Do you think you could tell the difference between the bulk of a grain and a half grain of morphine, lying side by side ? A. No, sir ; I am sure I could not. (*Appendix t.*) Q. If you saw them lying along side of each other ? A. Not necessarily then.

Q. I want to ask you whether half a grain of morphine is not sufficient bulk to be readily distinguished from a grain ? A. No, sir ; I think not.

Q. You were present at the time of the administering of that belladonna, were you ? A. Yes, sir. Q.

How much was given ? A. I am uncertain just now as to the exact amount ; I think now about eight grains in the morning. Q. It is an antidote to mor-

phine ? A. It is so considered. Q. That is not sure ?

A. No, sir. Q. Physicians are not determined, in cases of morphine poisoning, whether it is an antidote ?

A. No, sir. Q. They are not perfectly satisfied of it ?

A. No, sir. Q. So that when you physicians administered belladonna to Mr. Coates, you were taking the

risk of its soundness ; some physicians might have thought you were not taking the proper remedy ? A.

Some might ; they might deny the antidotal properties. Q. How do you account for its prevailing

over the morphine, dilating the pupil, and not removing the coma ? A. I do not account for it. Q. Would

you not expect, after prevailing over one effect of morphine, it would over them all ? A. Yes, sir ; I

would expect it would. Q. The fact, then, that the man continued in the coma, you think, was unusual

after you saw the dilation and the effusion of the blood over the body ? A. I cannot say about that ;

my experience has not been large. Q. It was con-



trary to your expectations ? A. Yes ; I expected, when I saw the flush, that the other properties would be brought out. Q. Now, if the coma was owing to something else, other than the morphine, you would not have expected its removal by the antidotal effects, would you ? A. Not so far as that is an antidote ; no, sir.

Q. What was the object of wrapping him up warm ? A. The circulation was flagging, and he was getting cold. Q. Do you not think that is, on the whole, antagonistical to the idea that cold effusions are more proper ? A. No, sir ; I do not think so ; we had tried cold effusions ; they did no good, and we tried something else. Q. Did you ever hear that it would be proper, on a hot July day, to wrap a man up and put him to bed ; is there not in that a tendency in the direction of coma ? A. It was not done with that sole object. Q. I may ask whether it would not tend in that direction ; your object was, of course, to save the man's life ? A. It was not merely to keep him warm. Q. But it had that effect ? A. Yes, sir. Q. And in itself, did not that tend to coma ? A. I did not think so at that time.

Q. Is it your idea that there can never be pyæmia without ulceration ? A. I would not say it can never be, and yet I have never seen a case.

Q. Can you account for the swelling of the face and hands ? A. I did not see any, sir. Q. Did you see any cause which would account for it ? A. No, sir.

Q. Those circumstances are left out of your judgment, when you say morphine caused death ? A. Yes, sir, altogether.

Q. Would pyæmia produce a swelling of the face and hands ? A. I never saw such a symptom. Q. Would it produce pain in the head ? A. I think it might ; it might produce delirium. Q. Might it produce pain in the bowels ? A. It might ; I do not



think it is likely it would. Q. Might it not? A. I do not know.

Q. Might not corrupt blood in the system produce pains in any part of the system in which blood went? A. I do not know about that, sir.

Q. The symptoms of the pain in any disease are not uniform? A. Not universal. Q. I suppose there are not two cases exactly alike, because there are not two people exactly alike? A. No, sir.

Q. Would an over dose of belladonna produce congestion? A. Yes, sir. Q. And coma? A. No, sir; it would not. Q. Is not coma the direct result of congestion? A. Not necessarily. Q. How would the congestion produced by belladonna be different from the congestion produced by morphine? A. I do not know, sir; the distinction is not made by congestion. Q. Why do you think the congestion of belladonna would not cause coma? A. The congestion, or the effect of belladonna, is delirium rather than coma.

Q. Delirium is one of the primary effects of morphine? A. Sometimes. Q. Now step beyond delirium, don't you produce coma? A. You may. Q. If there be a tendency to congestion in the system, is not belladonna rather an imprudent remedy? A. It depends upon the cause of the congestion? Q. If the congestion is universal? A. I do not then consider it an imprudent remedy.

Mr. Dixon here read from Beck's Medical Jurisprudence a case quoted, of death from belladonna.

Q. In this case the patient died twelve hours after eating the berry; this seems to be a case where death was caused by eating belladonna berry; you are not now willing to say it does not produce coma, are you? A. I do not know, sir, the effect of the berries of belladonna. Q. Is not the same active principle in the berries as in the extract? A. I don't know, sir. Q.



What is your extract from? A. From the leaves. Q. How much belladonna would you consider a dangerous dose? A. It would depend upon circumstances. Q. Well, take a patient who is healthy? A. Well, sir, it would depend upon the disease. Q. It would not be a healthy person if he had disease? A. I would not give it to a healthy patient. Q. I am not now speaking of a prescription but of a dose; you are avoiding the question; how much could you give reasonably without danger from death resulting? A. I do not know what a poisonous dose is; we do not usually give more than a grain.

Q. Do you know the chemical composition of belladonna? A. No, sir. Q. The chemical composition of morphine? A. No, sir. They are carboniferous? A. Yes, sir. Q. Is not carbon poison? A. I never saw the statement. Q. Is not carbonic acid gas poisonous? A. I never saw it. Q. If you carbonize the blood is it not poisonous? A. Yes, sir.

By the Court: You had one of the powders? A. Yes, sir. Q. Whom did you give it to? A. Coroner Burns.

### DR. EMMANUEL BOCK,

Examined by Mr. Garretson, testified:

I live in Jersey City, and am a practicing physician; I was called to see Mr. Coates the same day Drs. Wilkinson and Forman were there; I got there about six o'clock in the morning, and remained very near up to twelve o'clock. Q. When you first saw Mr. Coates what was the matter with him? A. He was quite comatose; insensible; he was stertorous breathing, snoring; pulse very slow; he was leaning in a rocking chair, that is the way I found him. Q. What did you suppose was the trouble with him? A. Well, I could not quite make up my mind, but from the history of the case I think he died from an over dose of morphine:



there were two powders left, and I tasted one, and I made myself sure that the one I tasted was morphine.

Q. What was done for Mr. Coates? A. I suggested coffee, but there was no place to get it; we tickled his throat, but he did not vomit; some cold water we threw over him, but it had no effect whatever; it was no use; there were injections of belladonna, which had a little effect, but no great deal; some of the physicians went away; I stopped there; they came back; removed him to bed; gave him injections of brandy, but it had no effect.

Q. Were you present at the post-mortem? A. Partly. Q. What do you mean? A. I was called away—note came—other physicians there—took my place—I went away. Q. At what portion of it did you go away? A. At the opening of the cranium.

Q. What was the cause of death? A. Congestion.

Q. Produced by what? A. Over dose of morphine.

Q. How much morphine do you usually give?

A. I have never given over one-quarter of a grain.

Q. What sort of a dose would one grain be? A. A dangerous dose.

*Cross-examined by Col. Rogers:*

Q. How long have you been practicing medicine?

A. Since 1854. Q. Where did you graduate? A.

Here. Q. When? A. About two years ago. Q.

Whereabout? A. At the University of New York.

Q. Did you get a diploma? A. Yes. Q. Did you

commence practicing before you got your diploma?

A. Yes. Q. Where did you practice before you

graduated? A. In Scotland and England. Q. How

long did you practice in Scotland? A. About two

years. Q. Did you keep a cigar store there? A.

No, sir. Q. Not in Glasgow? A. No, sir. Q. Was

not your place of business burned out in Glasgow under suspicious circumstances?



Mr. Garretson objected to the question.

Col. Rogers stated to the Court, that his object was to find out how much Dr. Bock's previous medical experience qualified him for coming before the Court as an expert. He claims to have been in practice since 1854, although the only diploma he has is not yet two years old. The defense would simply like to know how much experience in the practice of medicine, a man can have who is at one time a block printer of cheap handkerchiefs, and engaged in various other occupations at various other times. A man under these circumstances is not supposed to have a very exact knowledge of differential diagnosis.

The Court admitted the question, as it was perfectly proper for the defense to ascertain the previous medical knowledge of the experts brought by the prosecution.

A. No, sir, I was not. Q. You had no connection with the cigar business in Glasgow? A. I won't answer.

The Court: You must.

A. I was not. Q. You were practicing medicine in Glasgow? A. I was. Q. How long? A. Two years. Q. Where did you then go? A. Liverpool. Q. Did you practice medicine there? A. Yes. Q. Keep a thread and needle store? A. No. Q. When did you come to this country? A. Four years ago. Q. Was medicine the first business you went into? A. Yes. Q. Have you ever before this seen a case of poisoning by morphine? A. No, sir, but by opium. Q. Where? A. In Liverpool; it was a child about a year old. Q. Do you know the amount taken? A. No. Q. Was it fatal? A. No. Q. Then I suppose you never saw a post-mortem after opium poisoning? A. No. Q. All you know then is by reading; have you frequently given opium or morphine? A. Rarely. Q. What is the largest dose



you know of being given without a fatal result? A. In consultation of physicians I have given as much as a grain.

Q. Upon what do you base your opinion that Mr. Coates was poisoned by morphine? A. I was told he had taken a powder and had become very much excited, and then coma came. Q. Did you hear of his going to sleep and waking up voluntarily? A. No. Q. Was then your opinion based on coma? A. No. Q. Then it was because he was excited and then coma came? A. Yes. Q. You got at the house about six o'clock; when did you leave? A. About twelve. Q. You were there all that time? A. Yes, sir. Q. Are you sure you was in the house all that time? A. I think so. Q. As sure as you are of any statement you have made? A. Yes, sir. Q. Did the other physicians stay away an hour? A. No. Q. Do you know it is one of the common effects of narcotic poisons for the mouth to be open, and the lower jaw to fall? A. No. Q. You don't? A. No. Q. You have never read it? A. No. Q. What is your opinion? A. My opinion is that they do not open their mouth. Q. Why not? A. My opinion is that the muscles get rigid, so that they cannot open their mouth. (*Appendix v.*) Q. Before death are the muscles rigid? A. Yes. Q. Doctor, what is your religious belief? A. I think the Court will not oblige me to answer that. I do not know what that has to do with it. *I came here to testify that this man died of poison from morphine. (A beautiful example of ingenuousness.)*

Col. Rogers stated that his object in asking the question was to find out how much reliance could be placed upon the Doctor's testimony, as far as his oath was concerned. The defense believed him to be a Jew, and so not qualified to swear upon the New Testament.



A. I believe my oath to be as good upon the New as upon the Old Testament.

By the Court : Do you consider the oath you have taken binding upon your conscience before God ? A. Yes, sir.

Col. Rogers : That will do. (As the witness takes his seat, he gives the Counsel a polite invitation to come down to his house, and he will teach him about his religion.)

DR. W. BUCK,

Examined by Mr. Garretson, testified :

I live on Communipaw Avenue, Jersey City, and am a practicing physician. I was present at the post-mortem examination of Mr. Coates. Q. From the post-mortem examination, what did you conclude was the cause of death ? A. I could form no conclusion, sir. Q. If you had been told that he had taken a grain of morphine, what then would you have thought ? A. I should have had a right to presume that that had accelerated his death ; it might not have though ; I would not be positive. I should have had to have known the idiosyncracies of the person. The post-mortem appearances of all narcotic poisons are unreliable. Q. What evidences of disease were there in the body ? A. The adhesions of the lungs were all I saw ; I was called away before the stricture of the cystic duct was found. None of the evidences of disease I saw were sufficient to have caused death ; there was great congestion of the brain. Q. What could have caused that congestion ? A. It is utterly impossible to say from the appearances alone what caused it ; it may have been caused by a great number of things ; I don't think it could have been caused by anything I saw.

Q. What did the gall bladder contain ? A. A yellowish milky looking substance, resembling de-



composed pus; there was no evidence of ulceration in the gall bladder that I saw. Pyæmia is absorption of pus from any ulcerating surface. Q. Did you ever know a case where pus was absorbed from the gall bladder? A. No, sir; but I could not say that it might not occur; I do not think that absorption of this matter could have produced the congestion. Q. Is morphine ever prescribed for pyæmia? A. No, sir; it is given principally to allay pain, and I hardly think that pain would be a prominent symptom of pyæmia. Q. What are the symptoms of pyæmia? A. Great and alarming prostration, chills, cold perspiration, rapid pulse, and delirium.

Q. What is an ordinary dose of morphine? A. An eighth, a third, a quarter, perhaps a half grain, and in extreme cases the dose may be largely increased; I don't think though that I, myself, have ever given over a grain at one dose. Q. Have you ever prescribed that when absent? A. No. Q. Why do you not prescribe that amount when away from the patient?

Mr. Dixon objected to this question, as in order to answer it the witness must foresee every possible concatenation of symptoms that could ever possibly arise under any possible circumstances or contingency. Admitted.

A. I should simply say that if I had a patient so ill as to need a grain of morphine, I would regard it as my duty to be beside him. Q. Would it be safe to give a dose of a grain of morphine without being with the patient? A. That is a pretty hard question to answer; if I had known the patient previously, and was familiar with his symptoms and peculiarities, I might have done as Dr. Lund did under the circumstances, because I do not know the circumstances, nor the condition the man was in. Q. You would require considerable knowledge of the patient, would



you? A. Oh, yes. Q. Suppose you had never been called to attend him before the previous day?

Mr. Dixon objected to the question, as one out of the range of the testimony of experts.

Q. Suppose you had been called to prescribe for a man at three o'clock in the afternoon, and upon being called upon again at eleven at night, would you consider it safe to give him a grain of morphine, without knowing more of him than what you had learned in your first visit?

Mr. Dixon objected to the question, because objectionable in the answer it sought, and because it supposed a condition of facts that were not in accordance with the testimony in the case. Admitted, and exception taken.

A. I should call it heroic treatment, which means risky; I would not call it dangerous, but say a man takes his own risk; but if I had seen the case at the time, and the sufferings had been as great as I understand they were, I might not have hesitated to have given even more.

*Cross-examined* by Mr. Dixon:

Q. The question of risk would be materially modified by the amount of information you got at your first visit? A. Yes, sir; very much. Q. And very much by the knowledge that the patient was suffering from very extreme intense pain, would it not? A. Yes, sir.

Q. How does pus, in a case of pyæmia, get into the circulation? A. It is absorbed directly from the ulcerated part into the veins.

Q. Are not absorbents present in the gall bladder? A. Yes, sir.

Q. To what do you attribute the presence of the pus in the gall bladder? A. The cystic duct being closed, and the bile retained there a long time, it had under-



gone alteration and become puriform. Q. A sort of putrefaction? A. Yes, sir; I think that the interference of the functions of the gall bladder may have caused that terrible sickness; I think that the man might have died of colic, without any morphine; a man may die of bilious colic. Q. In what way. A. There is no greater pain in the world than bilious colic; it is intolerable, and shocks the nervous system, stays the circulation and causes death with congestion. Q. For colic, morphine is a proper remedy. A. Yes. Q. And in large doses? A. Yes, sir; but it is proper to divide the doses.

Q. Can belladonna produce coma? A. Yes, sir.

Q. Suppose you had been told that Mr. Coates had had eight grains of belladonna infused into his system, and then had made or seen, as you did, the post-mortem, may you not have thought it possible that the belladonna was the cause of death? A. Well, I may have thought it possible, knowing no more of the previous history than that.

Q. Belladonna is a narcotic poison? A. Yes, sir.

Q. Where is the foramen of Monro? A. I do not remember.

Q. Is there not a little channel connecting the lateral ventricles with each other? A. I remember now; I am not *expert* on that point, as the brain is a difficult thing to study and remember. Q. But you carry a foramen of Monro about with you? A. Yes; and I venture to say I know as little of it as I do of yours. Q. Would it not be likely to establish an equilibrium between the ventricles, so that when there was serum in one, the other would not be empty? A. Yes, sir; I think so.

Q. Did you see the stomach taken out of the body?

A. I did. Q. Do you remember where it was laid?

A. I do not. Q. Did you see it sealed up? A. No, sir. Q. It must have been laid down somewhere?



A. Yes, sir ; it could have been laid on the table. Q. Was any special care taken that no foreign substances should trouble it ? A. No special care, only ordinary care.

*Re-direct examination :*

Q. What would be the post-mortem appearances of a man who died of colic ? A. General congestion about the parts affected. Q. Would it produce congestion of the brain ? A. I think not. Q. It would not ? A. I think not.

Q. In a man dying from colic, would the pupil of the eye be affected ? A. I think not from that alone. Q. Any perspiration ? A. There might be. Q. Would he be sensible or not ? A. Semi-conscious ; there are always, though, in those cases, towards death, more or less congestion about the vital organs, as brain and lungs ; so there would be a comatose state. Q. How long before death would that continue ? A. It is hard to state ; perhaps several hours.

*Cross-examination continued :*

Q. Simple apoplexy may occur from congestion of the brain alone ? A. Yes, sir.

Q. What do you think was here the cause of the swelling of the face and hands ? A. I doubted, when I heard it, that there was any such symptom ; it may have been an incorrect observation.

Q. Could there be an effusion of bloody serum in the lateral ventricles without injury ? A. No, sir ; *it would be apoplexy*. Q. Could it result from morphine ? A. No, sir.

Q. How many drops of laudanum in an ounce ? A. One hundred and twenty in a drachm and eight drachms in the ounce. Q. So Dr. Wilkinson was wrong when he said there was sixty drops in a drachm ? A. Yes, sir. Q. As to the other proportions he named, are they correct ? A. Yes, sir.



## DR. CULVER,

Examined by Mr. Garretson, testified :

I am a practicing physician in Jersey City, and was present at the post-mortem examination of Mr. Coates, by invitation ; did not see him before his death ; could hardly form any opinion as to the cause of death from the appearance of the body before the examination was commenced ; the lividity of the skin might have given a clue perhaps ; it would indicate a congestion of the superficial vessels, but it would not indicate the *cause* of the congestion. I was a close observer during the post-mortem examination, although I did not expect to be called upon to testify ; I first looked for something that would cause the ante-mortem symptoms, but saw nothing that could have caused pain in the head or thorax ; in the abdomen the gall bladder was distended with a liquid, and could not be emptied by pressure upon it ; the descending colon, more particularly at its junction with the rectum (the lower part of the bowels), presented a striated injected appearance, as if of inflammation ; this was sufficient to account for pain, not a mere ordinary colic, but the pain of inflammation ; moreover, the gall bladder was on the stretch, and the cystic duct closed ; upon the principle that the distending power of liquids, in cylindrical tubes, is as the squares of their diameters, if we consider the diameter of the gall bladder a thousand times the diameter of the vessels that emptied into it, we would have a distending power, in this case, a thousand times a thousand as much as the force of the inflowing current. The distension of the gall bladder under such circumstances would cause intense pain ; it would tend to reopen the cystic duct, and as the distension of the cystic duct, in the passage of gall stones, causes pain of the worst kind, the pain here would be similar ; it is possible that within a few hours of the man's death there might have been a



slight reopening of the cystic duct, enough for a drop or two of pus to have passed through into the small intestine, and produced precisely the condition of things observed; also, in this case, the formation of sulphurated and phosphorated hydrogen would have produced pain. As I understood the man had pain before he died, I looked for something to account for the pain, and the causes above alluded to are, in my opinion, sufficient to have caused pain; I also formed a conclusion as to the cause of death; the inflammation of the lower part of the bowels had not progressed to an extent sufficient to have caused death. Our conclusion in regard to the gall bladder would depend upon the quality of its contents; my impression then, from mere ocular inspection, was that there was pus there, pus in a state of some degree of putrefaction; the question here might arise whether absorption from the walls of the gall bladder, of its contents, might not have occurred, and contaminating the system, with the septic matter, have thus caused septicæmia. In answering this question we had to notice how the conditions found coincided with those that would be found in death from that cause. Septic matter added to the blood coagulates the fibrin at once; this takes place first where the blood moves the slowest, or in the capillary circulation. Matters absorbed from the gall bladder would ultimately reach the blood in the hepatic vein, which carries the blood from the liver to the heart; they might also enter some of the smaller vessels in the portal circulation; if this took place we would have coagulation of the blood in the liver, a blocking up of the circulation, and hence a congestion of the liver and of the portal circulation; this congestion existed, but not to a greater extent than it did in the other parts of the system; if any of the septic matter reached the lungs we would have congestion there, and during life difficult breathing; congestion



there also existed, but to no greater extent than in other parts of the system. I do not think that the post-mortem appearances would leave any other indication to guide us in determining whether septicæmia had existed, except perhaps this: if septic matter is absorbed the liver is always easily broken; on lifting it up the fingers crush into it; this fragility of the liver did not exist. Therefore, in regard to the theory of septicæmia, I would say that it is but a theory. We did not observe where any pus had escaped through the cystic duct into the intestines, and yet it is proper to state that this might occur, and we might not be able to observe it afterward. The general venosity of the blood, and the obstruction to its circulation, would account for the congestion of the brain; we have these two causes where we have anything paralyzing the vital powers, and at the same time allowing life to continue for awhile. As the congestion was general the cause must have also been general, and this seems to me to narrow the cause of death down to septicæmia, and to poisoning by morphine. What I have stated is the result of my observation, and perhaps for the rest you had better question me.

Q. How could you decide the question between the two? A. In deciding the question we have, first, the fragile liver wanting, for the theory of septicæmia, and also a too well marked lividity of the surface for that disease. The differential diagnosis, as based upon the post-mortem, would end about there, and leave the matter with a doubt. To go further we would have to look to the symptoms and history before death.

Q. What are the symptoms of septicæmia before death? A. First, impairment of the vital powers and prostration; more or less perspiration; there is no reaction, but steady progression; in this stage there is never coma, but often a little delirium. When coma comes, the patient has but a few minutes to live:



there may be more or less epigastric pain, nausea, vomiting, and diarrhoea. Q. How long could these symptoms be observed before death? A. Several days; cases of puerperal fever are mostly septicæmia cases. Q. Wherein do the symptoms of septicæmia resemble those of poisoning by morphine? A. The post-mortem appearances of congestion would be similar, only there would be a less degree of congestion of the surface in the former. The general impairment of the contractility of the muscles would be similar, but in septicæmia it would be slower than in poisoning by morphine. I have observed a case where a patient had taken an overdose of opium, had become conscious for a little while, and then soon after died; that is, I depended upon the statement of the family, which I presume to have been true. The coma which comes on from septicæmia, though generally not prolonged, may be present where there is any effusion in the brain of blood or serum.

Q. What symptoms are there in poisoning by morphine which are not found in septicæmia? A. The fragility of the liver would not exist in poisoning by morphine; there would be a general congestion of the surface in the former, but not in the latter. Q. What would be the symptoms in poisoning by morphine? A. First, a comfortable fullness of the circulation, perhaps giddiness or headache; constipation instead of diarrhoea, as in septicæmia; a gradual increasing impairment of the sensory functions, to an entire arrest of the senses; the impairment of the muscular contractility would arrest the power that urges on the circulation, causing thus congestion.

Q. If you observed these symptoms: a patient totally insensible; pupil of eye contracted; surface of body blue and livid; large beads of cold perspiration all over the body; disturbed breathing; respiration about twelve to a minute; pulse, slow and laboring; what



would these indicate? A. If both pupils were equally contracted, I should feel almost sure that poisoning by morphine, or by some of the preparations of opium, was the cause of them; the contraction of the pupil might occur from a degree of congestion that would follow apoplexy; as there was no apoplexy, my conclusion is that it was morphia.

Q. As diarrhœa is one of the symptoms of septicæmia, was there any indications of diarrhœa present?

A. No, sir, on the contrary, the colon was impacted with fæcal matter.

Q. What is the difference between pyæmia and septicæmia? A. Pyæmia is an older name used before it was known that pus could not be absorbed at all; the pus corpuscles are not absorbed through intact tissues. The liquor puris, especially when the pus was rendered liquid by putrefaction, may readily be absorbed, and then we have septicæmia. When pus gets into the blood it generally produces small abscesses wherever it finds a lodgment, especially in the liver. We found none here.

Q. Would morphine be given for septicæmia?

A. Not for the septicæmia itself, but might be given to allay pain.

Q. In that case in what dose would it be given?

A. It would depend upon the condition of the patient, and upon the views of the prescriber.

Q. What do you consider the largest dose safe to be given? A. My habit is to give it in small doses, and repeat if necessary, giving it, as it is called, tentatively.

By Mr. Dixon: What do you call a large amount?

A. It is a very indefinite thing, according to the case. I have given in the course of some four hours, to a child eight years old, an entire ounce of laudanum (*Appendix iv*), and he is living yet.

Q. What is the smallest dose of morphine that would be liable to prove fatal? A. The smallest dose of morphine I have read of——



Mr. Dixon interrupting the witness : The Court will understand that this is subject to the same objection as already given in the case of the other witnesses.

Witness continues : The smallest dose I have read of is in the foot note of Beck's Medical Jurisprudence, where it is stated, I believe, that a quarter of a grain caused that effect ; the better way for that testimony would be to refer to the book itself.

The Court : It would not be testimony.

Mr. Garretson : What kind of practice would it be to prescribe a grain of morphine in the absence of the patient ? A. I should look upon it as careless practice.

Q. Careless under all circumstances ? A. To prescribe without knowing the condition of the patient is careless under all circumstances ; I believe a good many physicians do it.

Q. Were the lungs healthy, excepting the adhesions ? A. I think they were ; I cannot say how long the adhesion had lasted ; I should say that the small size of the lungs and the adhesions impaired the vital vigor, and so made him an easier prey to any of the death producing causes I have mentioned. Q. Should a smaller dose of morphine be given to a man in that condition ? A. It should.

Q. What effect would a dose of morphine have on a person suffering from congestion of the lungs ? A. It might produce a fatal effect ; it would retard the circulation where we ought to give stimulants to hasten it.

Q. How many cases of septicæmia have you known ? A. I cannot recollect ; it is not a common disease. Q. In the cases you have spoken of, where did the poisonous matter originate ? A. In one case from drinking water that contained a putrefying toad ; in another from a sloughing syphylitic sore ; in another from using Passaic water, containing putrid matter. Q. Which of these proved fatal ? A. The one drinking



the water containing the toad recovered ; the other two proved fatal. Q. Did you ever know a case where the poisonous matter originated in the gall bladder ? A. No, sir, I have never known such a case ; some patients, however, have died without my having known the exact cause.

Mr. Garretson here rested in his direct examination of the witness. As Mr. Dixon was preparing to cross-examine, the witness desired to be excused. The defense allowed him to go home, with the understanding that he was to return the next day. His cross-examination therefore properly comes after that of James Kelly, but for convenience, is inserted here.

By Mr. Dixon: Are you familiar with Magendie's Solution of Morphine ? A. I am familiar with it to a certain extent, but am not in the habit of prescribing it. Q. Do you know how much is an ordinary dose ? A. The exact dose I should probably have to figure up ; it is about — Q. (Interrupting.) Do you not know what an ordinary dose among physicians is ? A. Not until I count it up. Q. Then you do not know ? A. Not from mere recollection ; it is of that strength that I dislike to use it. Q. Physicians, allopathic physicians, quite frequently use it ? A. I am not an allopathic physician. Q. Are you not ? A. Nor homœopathic. Q. Indeed ; you then belong, I suppose, to the Culver school ? A. No, sir, I am a graduate of the College of Physicians of New York ; the term allopathic is given in derision to all other schools by homœopathists ; my school is to practice what we can learn both of diseases and the effects of medicines upon them. Q. For "we" I presume you mean to substitute "I" ? A. No, sir, I said the school, if you wish to distinguish it as a school.

Q. I did not exactly understand your theory about the distending power of liquids ; explain yourself ; do you mean the elasticity of liquids ? A. I mean the



bursting power which they exert on tubes containing them. Q. Is it anything more than the weight of the liquid? A. It has scarcely anything to do with its weight; it depends upon the pressure at the fountain head, as the gas in the street pipes depends upon the pressure of the gasometer. Q. Well, is not the bursting power of a gas largely due to its elasticity, to its tendency to expand? A. Not at all; because no matter how much elasticity the gas may have, the same pressure will be exerted upon the tubes throughout, proportionately to the squares of their diameters. Q. That is true enough; but that pressure which you are to exert, must it not be exerted through the elasticity of the body which is producing the pressure, or through weight? A. No, not necessarily; it is from the power which the particles have to move upon each other; all forces are opposed to other forces, and if the pressing power of the atmosphere upon the earth were not arrested by an equal pressure of the earth upon the atmosphere, the earth would shrink to nothing; of course you understand me. Q. I confess I do not understand you; the shrinking of matter to nothing, that is an annihilation which I always supposed impossible. A. We have no knowledge of matter, except the force it exerts upon us. Q. Do you mean to say that matter and force are identical? A. I do. Q. Then you would call motion, matter? A. Motion is a mode of the exertion of force. Q. Is it not force? A. It is the resultant of force. Q. Is it not force itself? A. It is not proper to confound the two terms. Q. No, because force is broader than motion, but is not motion force? A. Yes, it may be said to be under certain circumstances.

Q. Explain to us the distending power of liquids, as you meant to apply it to the gall bladder; we may, perhaps, find out better what you mean, by the application of your idea. A. The gall bladder was being



distended by the secretion of a substance into it. Q. What was the last position of this substance before it entered the gall bladder? A. The metaphysics we have been on— Q. Never mind metaphysics; we are on the gall bladder now. A. If I recollect right, I was going to explain— Q. The last position of the secretion before it reaches the gall bladder. A. There is a thin tissue between the cavity of the gall bladder and the blood, and the secretion is in a state of osmosis through that intervening tissue. Q. Well, go on with your explanation of the “distending power?” A. The secretion passes through this membrane, as through a filter, from the blood into the gall bladder, which, being distended with the incoming liquid, would be enlarged more and more; that enlarging power is identical with what I have called the distending power; as soon as the fibres are put upon the stretch, they begin to exert a compressing power upon the liquid, and the liquid to resist that power.

Q. In regard now to the brain, may not there be a congestion so general as to cause apoplexy? A. True, if at some point, at the same time, the tissues give way. Q. Can there not be apoplexy without the tissue giving way? A. That is said in the books, by the later books more especially? Q. If that existed, would not the contraction of both pupils be alike? A. It is an apoplexy impossible of proof; we never find it in post-mortem examinations; if, however, there were such an apoplexy, and the hyperæmia were alike throughout the brain, we might have an equal contraction or equal dilation of the pupils.

Q. The books talk about simple apoplexy? A. They do. Q. Talk about it as if it had an existence? A. They do; I will not deny that; I only say I never knew such a case. Q. So we must, I suppose, consider it so; simply, it never came under your observation? A. If it did, I should consider myself careless in that respect.



Q. Is fragility of the liver existent, except where the septicæmia has been considerable? A. In cases where septicæmia kills, we always expect to find it.

Q. You did not handle this liver, I believe? A. I think I did not; I believe, however, I called for a towel to wipe my hands with, and so may have punched my fingers into it.

Q. Does brandy accelerate or retard the action of morphine if taken upon an empty stomach? A. It would intensify the fatal effects of the morphine most certainly.

Q. Was the inside coat of the gall bladder in the condition you would call intact? A. I cannot say certainly, as it was not examined microscopically.

Q. Do you know a young lady named Miss Copeland? A. I don't think I know her. Q. Did you ever know a young lady by that name? A. I have known a family by that name; I am not sure whether they had a daughter or not. Q. Did you not, some two or three years ago, attend a member of that family? A. I could not tell that; I attended a Mrs. Copeland, who died in child-birth. Q. What did she die of? A. I have not a distinct recollection of the case; I think there was diarrhœa, a condition indicating an absorption of pus, and some irritation of the intestinal canal from improper food. Q. You think, then, that septicæmia was present there? A. I think there was. Q. Did she die in a state of coma? A. I think she did. Q. Did you not administer morphine in that case? A. I don't know whether I did or not; very likely morphine was given, as the diarrhœa came on with pain; an opiate in some shape may have been given. Q. If the diarrhœa and pain had occurred from septicæmia, and you had known it, would you have given an opiate? A. I might; we would, if there was extensive septicæmia, as we would not then expect a recovery, and it would only be a



palliative. Q. *The coma which came on, was that the result of the morphine?* A. I do not know but what it may have been, from the general prostration of the vital powers.

ROBERT OGDEN DOREMUS,

Examined by Mr. Garretson, testified: I reside in the city of New York, and am Professor of Chemistry in the College of the city of New York, and also in the Bellevue Hospital Medical College.

Q. Did you receive any communication from Coroner Burns in July last? A. On the 25th of last July I received a glass jar from Coroner William Burns, containing a stomach which had been opened, and three and a quarter ounces of a brownish liquid; I also received two white powders; I was requested to analyze the stomach and powders; the powders were weighed, one weighing one grain and eight hundredths and the other six-tenths of a grain; they were then submitted to the proper tests, which proved them to be the sulphate of morphine; the stomach was then analyzed, all of the experiments being performed in a place specially provided for such investigations, and with new vessels purchased for the purpose. (*The Professor here gave the different steps of the analysis.*) The result of the analysis showed traces of morphine; the quantity, however, was *exceedingly small*, only enough to give clear indications, and not enough to be weighed.

*Cross-examined* by Mr. Dixon:

Morphine was the only poison found in the stomach. Pus consists principally of water and certain fatty substances, and salts; there is nothing in its formation that would indicate its being poisonous, any more than there is in morphine; its effects upon the system has nothing to do with the carbon in it.



Q. How did you get these powders you weighed? A. I received them from Coroner Burns. Q. Directly from him? A. Yes, sir, from his own hands. Q. He did not leave them at your place for you? A. No, sir, he gave them to me out of his own pocket. (*Appendix x.*) Q. The morphine which you found in the stomach had produced no injurious effect upon the system, had it? A. No, sir. Q. How much morphine is a dangerous dose for a man to take? A. Less than a grain under some circumstances might cause death, and under other circumstances very much more might be taken. In a person of very feeble constitution, a very little might blow the candle out. Q. If a man was healthy, but was suffering violent pain—intense pain in the abdomen—would you expect a grain to be fatal? A. Morphine may be administered judiciously for the relief of great pain, in doses depending upon the degree of pain. Q. Could you detect by the eye the difference in bulk between a grain, and a half grain of morphine, lying side by side? A. Certainly, one would be twice as large as the other. Q. If they were both exhibited at the same time, and laid side by side upon the mantel? A. Certainly, sir. Q. You think you would not make a mistake? A. I think not. Q. And that would not be because of any peculiar expertness? A. No, sir.

DR. CHARLES A. VEIRS,

Examined by Mr. Garretson, testified :

I am a practicing physician living in Jersey City, and was present at the post-mortem examination of Mr. Coates. Q. Did you form any opinion as to the cause of death? A. I came to the conclusion that it was due to general congestion. Q. Did you form any conclusion as to the cause of the congestion? A. No, sir. Q. You have heard the testimony here as to the



symptoms? A. Yes, sir. Q. Taking these in connection with the post-mortem appearances, what do you think was the cause of death? A. I think it was due to morphine. Q. What is the usual dose of morphine? A. From an eighth to a quarter of a grain. Q. What sort of practice is it to prescribe morphine without seeing the patient?

Objected to as before, and exception taken.

A. It is careless. Q. What effect would the adhesions of the lungs have upon Mr. Coates' health? A. I think they would have no material effect.

*Cross-examined by Mr. Dixon:*

Q. Do you know what Magendie's Solution is? A. Yes, sir. Q. Do you ever give it? A. Yes, sir. Q. How much at a dose? A. From ten to fifteen drops. Q. What is an ordinary dose? A. From five to fifteen drops. Q. Then sometimes fifteen drops is an ordinary dose? A. Yes, sir; perhaps it is rather large for an ordinary dose though. Q. How much then is an ordinary dose? A. From five to ten drops. Q. In what cases have you given fifteen drops? A. In a case of facial neuralgia. Q. What is neuralgia? A. An affection of the nerve? Q. Is there any pain without an affection of the nerve? A. No, sir. Q. What then do you mean by neuralgia; you say pain is always due to some cause affecting the nerve; how then do you distinguish the pain you speak of from any other pain? A. It is an acute local pain. Q. By local pain, you mean a pain having a habitation? A. Yes, sir. Q. Did you ever know a pain that had no habitation? A. I have known pains that would change about. Q. They would only change their habitation? A. Yes, sir; if a person complained of a certain portion of the body, where there was an affection of the nerve, I should call it neuralgia. Q. How do you distinguish then between the different



kinds of pain ; gout is neuralgia, is it not ? A. You may call it so. Q. Toothache is ? A. Yes, sir. Q. And stomachache also ? A. Yes, sir. Q. Rheumatism ? A. Yes, sir. Q. And earache ? A. Yes, sir. Q. And headache ? A. Yes, sir. Q. What then is neuralgia ? A. It is an affection acting on the nervous system. Q. Are not all pains caused by some influence acting on the nervous system ? A. Yes, sir. Q. What then was there about this case, other than the pain, for which you gave the fifteen drops ? A. Nothing. Q. Would you not just the same give Magendie's Solution for pain, if it was located in the cystic duct ? A. Yes, if it was not contra-indicated. Q. What is the strength of Magendie's Solution ? A. Sixteen grains of morphine to the ounce of water.

Q. How much morphine would there be then in ten drops of Magendie's Solution ? A. In the neighborhood of an eighth of a grain. Q. How do you figure that up ? A. By taking the number of drops there is in a drachm, and then reducing it. Q. How many drops are there in a drachm ? A. About seventy-two. Q. That is of the distilled water containing the morphine ? A. Yes, sir. Q. Well, we will see whether you are right ; are you acquainted with Ellis' Medical Formulary (taking a book from his client's hand) ? A. Yes, sir. Q. What should you say if he said there was only *forty-five* drops of distilled water in a drachm ? A. Well, I should think it correct as far as Ellis is concerned ; there are a good many authors besides him, though he is a standard author. Q. He is probably right, is he not ? A. Yes, sir. Q. That reads " Ellis' Medical Formulary," does it not (exhibiting the back of the book to the witness) ? A. Yes, sir. Q. And that reads forty-five drops, does it not (opening the book and pointing out the place to the witness) ? A. Yes, sir. Q. Well, now go on ; there are forty-five drops instead of seventy-



two to a drachm : how many grains of morphine in a drachm ? A. Two. Q. That is two grains of morphine in forty-five drops of Magendie's Solution ; ten drops would then be almost one quarter of forty five drops, or of two grains of morphine, equal to almost one-half grain ? A. Yes, sir. Q. We are now on mathematics, not medicine ; then your dose of fifteen drops was over one-half a grain ? A. Yes, sir ; but I have given more than that. Q. How much ? A. I have given three grains at a time of morphine. Q. How much of Magendie's Solution have you given ? A. I have taken a drachm myself (two grains).

Q. Suppose you had called upon a patient and knew the trouble ; you believed it to be one likely to cause pain ; in a few hours afterwards his wife should come and inform you that he was in very intense pain ; it was very late at night, you had been up before that night and for previous nights ; you were sick, tired, wearied, and worn out—would you then consider it a very dangerous thing if you were to send ten or fifteen drops of Magendie's Solution ? A. I don't know as I should do it under those circumstances.

Q. Did you never prescribe morphine without staying with the patient and watching its effects ? A. I have ; yes, sir. Q. And if there were severe pain, you would prescribe it with less fear than as if there were no pain ? A. Yes, sir. Q. What, then, would be the reason that you should fear to prescribe morphine without going to the bedside of the patient and watching its effects ? A. I would consider it my place to go and see the patient, and see what was the matter with him. Q. Oh ! but we are supposing that you had seen the patient but a short time before, had formed your conclusions as to what the trouble was, that it was likely to cause pain, and the messenger had told you that the intense pain had come—would it not be common among physicians, under these circum-



stances, to send a dose of morphine? A. I don't know as it would? Q. Would it never be done? A. I think it would; yes, sir; but I don't think I should do it myself.

Q. Is it at all unusual for physicians to err in judgment as to the cause of the symptoms? A. No. Q. It is so common, that if you should be held responsible for manslaughter every time you erred in determining the cause of the disease, while prescribing for it, you would quit the profession, would you not? A. You bet I would.

Q. How long have you been in practice? A. About three and a half years. Q. And so soon learned that lesson? A. Yes, sir.

Q. Was fragility of the liver spoken of at the post-mortem? A. No, sir; it was not. Q. What was said about it? A. That it was normally healthy.

Q. Does morphine produce rigidity or relaxation of the muscles? A. Relaxation. Q. Does it produce stiffness of the jaws, so that you cannot open the mouth? A. I never knew that it did. Q. That would not be a symptom of morphine poisoning, would it? A. I think not; no, sir.

Q. Does belladonna produce that effect? A. Yes, sir. Q. Relaxation? A. Yes, sir.

Q. Was the heart weighed? A. No, sir. Q. Was it measured? A. I think it was. Q. How? A. By holding it in the hand, so. (Illustrating with his hand.) Q. Do you mean to give us that as the way it was *measured*; that is weighing, not measuring? A. Yes, sir.

Q. May apoplexy spring from any other cause than the presence of a clot of blood in the brain? A. The brain may be congested, and so produce apoplexy. Q. Death might come from the presence of apoplexy of that sort, without the presence of a clot of blood? A. Yes, sir.



Q. Now, the congested condition of the brain may be produced by anything that retards the circulation?

A. Yes, sir. Q. Anything that would retard the arterialization of the blood?

A. Yes. Q. Might it be caused by the introduction of pus into the blood?

A. It might be. Q. And there might be such a condition of the system as that the purulent matter, although not present in sufficient quantities to cause pyæmia, might yet retard the circulation enough to produce stagnation, and congestion of the brain, and so apoplexy, might there not?

A. I don't know whether it could be so or not.

Q. Well, just apply these things to your knowledge of the system; a venous condition of blood in the brain can produce apoplexy?

A. Yes. Q. Anything that retards the circulation, that carbonizes the blood, would produce that venous condition?

A. Yes. Q. The introduction of purulent matter into the blood will produce that condition?

A. Yes. Q. If the purulent matter be present in sufficient quantities it will produce pyæmia?

A. Yes. Q. But suppose it is not present in sufficient quantities to cause pyæmia, but sufficient to retard the circulation; the man is pre-

disposed to apoplexy, by his age and condition, and has a trouble with the lungs, binding them down so that they cannot properly act, and arterialize the blood sufficiently; may not these causes so combine as to cause that venosity of the brain which would produce apoplexy?

A. Yes, sir.

Q. All these causes, that is the slight impurity of the blood, not sufficient to produce the ordinary symptoms of pyæmia, might exist in the blood and not be noticed by the physician called upon to prescribe for the more patent symptom of pain?

A. Yes, sir. Q. The physician would not be careless who here prescribed morphine?

A. No, sir. Q. And if such circumstances should occur, and a post-mor-



tem should reveal death from congestion and apopleptic conditions, and you happened to have been the doctor who prescribed the morphine, would you then been willing to say that your conduct had been criminally responsible? A. No, sir, I would not. Q. Are you sure that some such thing has not happened to you in your practice, but it was not revealed for want of a post-mortem examination? A. I think not, sir. Q. Did you never have a patient die? A. Yes, sir, several. Q. Could you be always sure without a post-mortem examination that your medicine had not accelerated the trouble? A. Well, no, sir, I could not. Q. If you gave the medicine with a pure intention to check the disease, you would consider your responsibility gone? A. Yes, sir.

#### MR. HORACE BOWEN,

Being examined by Mr. Garretson, testified:

I live in Jersey City, and have been practicing medicine nineteen years; I am now a homœopathist. Q. What is the ordinary dose of morphine in your practice? A. Well, sir, the system of medicine has so changed that a dose loses its relative quantity. Q. You give morphine, don't you? A. Yes, sir. Q. Give us some idea what the usual amount in an ordinary dose is? A. We usually give it in dilutions; we take a grain of morphine and ten or one hundred drops of alcohol, and that makes the first dilution, one drop of that to ten or a hundred more of alcohol making the second, and so on, and of this we give two or three drops at a dose if we wish. Q. How much morphine would that be equal to? A. The thousandth part of a grain probably; it is considered a medium dose. Q. Do you ever prescribe the morphine itself in powder? A. No, sir, not now I don't. (*The reason for this is evident. The witness has killed, according to his own public confession, so many unsuspecting*



*patients in former times, by "blind, blundering, unscientific prescribing," that he now clings for very safety to the highest dilutions he can get.)*

Q. What sort of practice would it be to prescribe a grain of morphine without seeing the patient? A. I would call it allopathic practice. Q. And to be governed by the opinion of allopathic physicians? A. Yes, sir. Q. Is it safe? A. I do not consider it very safe under any circumstances; it might be as far as life is concerned.

*Cross-examination :*

Q. Do you know Dr. Lund? A. I met him once and had some conversation with him. Q. Do you know whether he is educated allopathically or not? A. I do not know anything about it? Q. The principles upon which homœopathists practice is diametrically opposite to those upon which allopathists practice, is it not? A. I believe so, sir. Q. Have you ever seen any cases of opium poisoning? A. Yes, sir. Q. Do you know how much morphine the system of a healthy male adult can bear without a fatal result? A. It depends upon the state of the system; one can take a large amount without danger, and another cannot take a small amount. Q. How large an amount can be given? A. The best authority upon that subject I know of is Dr. Alonzo Clark, who has given forty grains of opium in a dose, equivalent to about eight grains of morphine. Q. The use of tobacco would tend to make the system tolerant of opium, would it not? A. It would. Q. Would you anticipate a fatal result from a grain of morphine? A. Not in a strong, well man, I would not, sir.

DR. J. J. YOULIN,

Examined by Mr. Garretson, testified :

I am a practicing physician in Jersey City, and am a homœopathist. Q. What is an ordinary dose of



morphine according to that system? A. There is no "ordinary" dose. Q. How much do you give when

you give morphine? A. Morphine is generally prescribed by homœopathists in what is called potencies or dilutions; morphine as a salt is always prepared by trituration with sugar of milk; opium, on the other hand, is prepared in dilutions, in alcohol. Q. How

much do you give of the salt? A. I generally use the decimal trituration, made by one grain to ten of sugar of milk; the dose of that varies in different persons, according to their condition. I cannot state

accurately how much morphine there would be in a dose of the first decimal; perhaps the one-hundredth of a grain. Q. Then the largest dose of morphine given

by a homœopathist is the first decimal? A. Yes, sir; although, understand me, the drug, even morphine itself, may be given homœopathically as a salt. Q. In

what cases do you give it homœopathically? A. I would give it in a case of disease bearing and presenting a large group of symptoms, such as would appear in a case of poisoning by morphine. Q. Do you

mean to say that you would give a person poisoned by morphine, more morphine? A. No, sir; I said the symptoms of disease *resembling* morphine poisoning.

Q. How much in such cases would you give? A. Rarely higher than the fourth of a grain, following the homœopathic law. Q. Would you give as much

as a grain in any case? A. Not in such a case, no, sir. Q. Would you in *any* case? A. Yes, sir; I

would in some cases give a grain or more. Q. What kind of a case? A. In any case of severe suffering, as from cancer, or biliary calculus. Q. Have you ever

given that much? A. I have given three grains in a single night, one hour after another—a grain at a time—in a case of cancer of the breast. Q. Were you

present when that was given? A. I was not; I did



not see it given. Q. Would you think it safe to prescribe that amount of morphine without seeing the patient? A. Not unless I had seen him very recently, within a few hours: in a chronic case the time might be longer than in an acute case. Q. How in a case of colic, if you had not seen the patient for five or six hours? A. I never give it for colic, so I don't think I would prescribe it under those circumstances. Q. Would you consider it safe? A. It might be under some circumstances, as for instance, in a case of bilious colic.

*Cross-examined by Mr. Dixon:*

Q. The reason you do not give it in colic, is because it is not consistent with your homœopathic theory? A. That is it; I have other remedies that answer my purpose as well. Q. Some physicians in their practice combine the theories, do they not? A. Yes, sir. Q. Many homœopathic physicians have allopathic educations and training? A. Yes, sir. Q. Do you know whether that is true of Dr. Lund? A. Dr. Lund was educated in an allopathic college. Q. Where he could have learned allopathic theories only? A. Yes, sir. Q. Do you know what college that was? A. When he joined the State Medical Society, he presented a diploma from Harvard College of Cambridge, Mass. Also, he did the same in the Eastern District Medical Society. Q. He is a physician in good standing in these societies? A. We have considered him excellent. Q. Do you know how long he has been practicing? A. I cannot say exactly; some three or four years. Q. Has he met with fair success in his practice? A. I think very excellent success.

Q. What is the largest amount of morphine you have known a person to take? A. I have met within the year of a case of intended suicide, where the



patient must have taken about three ounces of laudanum (2,880 *drops*); she recovered. Q. What was her condition when you was called? A. I found her in a chair, sleeping heavily, and apparently unconscious, and her lower jaw fallen down; it was three or four hours since she had taken the laudanum. Q. What did you do? A. I poured mustard and water down her throat in large quantities. Q. Which she swallowed? A. The fluid went down, whether she swallowed or not; she began to rally very soon, and then by flaggellation, walking, dashing cold water upon her, we finally were able to consider her safe, and to leave her. Q. You consider keeping the patient in constant physical motion as very important? A. Yes, sir.

Q. Would you think of administering belladonna? A. I never would. Q. Would you think it dangerous? A. I would; I don't consider it an antidote of morphine. Q. Do homœopathic physicians generally weigh their medicines? A. I think they never do; but proportion them by their eye. Q. How is it with allopathic physicians, in the country for instance, who carry their own medicines with them? A. Their habit, I believe, always is to measure medicines out by the eye; I know my preceptor, who was an allopathist, always did. Q. They measured them with considerable accuracy, did they not? A. I think they did. Q. Do you think that there would be any difficulty in distinguishing, by the eye, the difference in bulk between two powders, taken from the same bottle, and lying side by side, one of which weighed one grain and the other one-half a grain? A. I don't think that there would be any difficulty whatever. Q. Are you familiar with simple apoplexy?

Mr. Garretson objected to Mr. Dixon examining Dr. Youlin on matters not gone over in the direct examination.



Question allowed by the Court.

A. I am, sir; there may be congestion alone with no effusion and no post-mortem changes from a healthy appearance. Q. Would you conclude from the contraction of the pupils the cause of the congestion? A. I would not. Q. You would look for it in congestion of any kind from any cause? A. I would. Q. Are there any absorbents in the gall bladder? A. There are, and they are numerous. Q. Is there anything to prevent the absorption of pus from the gall bladder by these absorbents? A. No, sir. Q. And the absorptions of pus from that place might produce congestion of the brain? A. Yes, sir. Q. General congestion throughout the system? A. Yes, sir. Q. You have heard the testimony of the witnesses, in regard to the symptoms before death? A. I have, sir. Q. Did you detect anything in these symptoms that was, in your opinion, antagonistic to the idea that Mr. Coates had died from apoplexy, produced by corruption of the blood through the pus? A. I did not, sir. Q. Were the symptoms such as you would anticipate from such a cause? A. To a great measure they were. Q. You cannot always by ante-mortem examination of a patient, determine the cause of death? A. No, sir. Q. Skillful and most experienced physicians often make mistakes? A. Yes, sir; I have known a consultation of six physicians to be mistaken, and not discover it until after death.

Q. Are you familiar with bryonia alba? A. Yes, sir. Q. Could it produce pain in the head or bowels? A. No, sir. Q. It is a homœopathic medicine? A. Yes, sir.

*Re-direct examination* by Mr. Garretson:

Q. You say Dr. Lund's reputation was excellent; do you mean his homœopathic or allopathic reputation? A. Homœopathic. Q. How long after Dr.



Lund came to Bergen did he join your society? A. I cannot say: I was acquainted with him some time before he presented himself. Q. Do you know where he got his homœopathic education? A. From his preceptor in Boston. Q. Do you administer morphine as a salt by the eye? A. No, I always weigh it. Q. Were your cases of simple apoplexy fatal cases? A. No, sir. Q. Have you known cases of pyæmia? A. Two that I remember. Q. What was the source of the pus? A. In one it was in the womb, and in the other from erysipelas and abscess of the face and nose. Q. There was ulceration in both cases? A. Yes, sir. Q. You have heard the symptoms spoken of in this case; suppose you further knew that morphine had been given, do you find anything in those symptoms inconsistent with morphine? A. No, sir, I should not, if I did not have anything else to govern me.

### JAMES KELLY,

Examined by Mr. Garretson, testified:

I used to board with Mrs. Coates. I am her brother. I was living at Mr. Coates' house at the time of his death. He was first taken sick the Sunday before he died, and complained of his stomach. On Monday morning he told me to go down and tell his foreman that he felt a little sick, and could not come to his work that day. I came home early in the afternoon, and saw him on the ball ground. When I went home Mr. Coates told me he did not like Dr. Wilkinson very well. Tuesday morning he felt worse, complaining more of his insides. I went away about eight o'clock, and returned about four o'clock, and he said he was still worse. He said he had changed his doctor, and had Dr. Lund, and said he liked him a great deal more than Dr. Wilkinson. Dr. Lund had conversed freely with him, and had prescribed some powders; he did not come down stairs that night to



supper. Some neighbors came in during the evening. About nine o'clock I laid down on the sofa, and went to sleep. At about eleven o'clock Mrs. Coates awoke me, and asked me to go up and stay with her husband until the Doctor came, and that he would be there in a few minutes. Mr. Coates seemed worse, and was nervous and impatient for the Doctor to come, and finally as he did not come, Mrs. Coates and myself went back for him, at about twelve o'clock. Mrs. Coates went up to the front door and rang the bell; some one came to the door, but I could not see who it was. She asked if the Doctor was in, and the reply was "yes." She said "tell him I want him directly." The reply was, "who shall I say wants him," and she said "Mrs. Coates." At the same time a voice from some one I could not see, from the inside, cried out, "what is the matter now?" She said "Doctor, I thought you were to be at my house in a quarter of an hour, and you have not been there yet." At that time I could see Dr. Lund. He said, "hold on for a few minutes." He went away and then came back in a short time, and said, "here is three powders, give him one as soon as you get home." She said "Doctor, I want you to come yourself and see my husband." He said, "can't you mix up a powder; put it in a table spoonful of water, and see that he takes it all; the last powders I gave were too weak." She said again, "Doctor, I want you to come and give them yourself." Three times she asked him to come, and the last time he said he would not; he told her not to come to the door again, nor ring the bell, for he would not answer her; she said she would not trouble him again, and went home and gave the powder; when she gave it to him she said, the Doctor says you must take it all; he sat quietly then from ten to fifteen minutes, when he got up and looked very wild, walked round the room a few minutes and then went into the bed-



room and threw himself upon the bed; he rolled round there awhile, and then came out in the front room again.

Mrs. Coates said, "John, what is the matter;" he waved her off with his hand, and said, "go away, I am mad, I am crazy;" he then walked round for a considerable time, quieting down all the time; finally he said he would like a little brandy; I gave him a table-spoonful of brandy, the best I could get at the druggists; we fixed him in his chair very comfortably, and in a few moments he was sound asleep.

Mrs. Coates was suddenly taken pretty bad with cramps in her stomach and legs, and I was left almost alone with him; she had gone down stairs and laid down on the sofa; he slept very quiet, a natural and easy looking sleep, breathing as easy as any one would, for a while, I cannot say how long, when he woke up again and asked me to give him a drink; as I went down stairs to get him a drink, his daughter came up; I went into the kitchen and filled a large sized coffee cup half full of tea; he told me before I went down stairs not to get him anything too cold or hot, as it "would cut his insides;" I then filled the cup up with warm water, sweetened it, and carried it up stairs to him.

His daughter was standing along side of him, and I heard him say, in answer to some question of hers, "I am in heaven beside what I was an hour ago;" she told him her mother was very sick, and he motioned her off with his hand, the same as to say, go; I gave him the tea, and he drank it all down and said, "that is first rate;" he then sat a few moments without saying anything, when he said, "Jim, I would like to see Mr. Gross;" Mr. Gross was his boss on the Cunard Dock; I told him I would go down the first thing in the morning and tell him so; he said I need not do it, as he would be very busy on account of one ship that was



to come in and another to go out; he then sat a few moments without saying anything, when he looked right at me, and said, "Jim, the grand crisis has come, I am at the turning point." That was, I believe, his last words; he sat there then for a little while, his eyes closed, and his head fell to the left; I got up and fixed the pillow under his head; I then watched him for about half an hour, when I noticed that he was breathing with difficulty; I saw then that he had changed color, and I thought his eyes had sunk a little; with every breath he would have a slight hiccough; I then called his daughter, and told her to call Mr. Welch, while I would go down to Jersey City and try to get either Dr. McDowell or Dr. Lutkins; it was a little before four o'clock when I started, and I got back about seven; I could not get either of them; when I got back, I went up stairs and looked at Mr. Coates and saw he was pretty much as I left him; I then went down stairs, when I saw Dr. Lund there and my niece; I heard Dr. Lund say that the case was taken out of his hands; I went up to him and said it was not, I went with my sister myself at twelve o'clock; he said, I begin to see that there was a mistake; the medicine Mr. Coates took was put up for a man by the name of Noonan, with delirium tremens; I don't know what then became of Dr. Lund; I had seen Dr. Lund before, when he had been calling the other side of the street; Drs. Wilkinson, Forman and Bock were there; they all left about nine o'clock, and came back after ten; the undertaker, Mr. Hughes, then came up and put the body on ice.

*Cross-examined by Mr. Dixon:*

I believe it was the left side of Mr. Coates that pained him so much; I have not known Mr. Coates to be sick for twenty years, but during that time I have been away much of the time, and so he may



have been sick ; while Mrs. Coates was at the Doctor's house the second time, I was standing at the bottom step going up to his front door ; I could not see who opened the door, whether it was a man or a boy, white or colored.

Q. At the Coroner's Inquest did you not swear that a black boy opened the door ? A. I think not ; I could not swear that, because the door was only opened on a crack, and I could not see any one there.

Mr. Dixon gave the witness his deposition before the Coroner.

Q. Is that your signature ? A. Yes, sir. Q. And that is your testimony before the Coroner ? A. Yes, sir.

Q. I see here this expression : " Mrs. Coates went up the steps and rang the bell ; a colored boy came to the door ; " I suppose you cannot testify to that now ? A. Well, I must have said it by hearsay, because I did not see him.

Q. Did the Doctor come down stairs before he came down with the powders ? A. I did not see him.

Q. In your examination at the Inquest I find this expression : " She said, go and tell him I want him immediately ; he went up stairs and the Doctor came right down ; " is that true ? A. I cannot say whether the person went up stairs or not. Q. And can you tell whether the Doctor came " right down ? " A. I cannot. Q. You did not see any one come down ? A. I did not.

Q. What was said after she said she wanted the Doctor immediately ? A. He asked her what name ; she said Mrs. Coates. Q. Have you talked this matter over with Mrs. Coates ? A. I have not. Q. Your recollection of these things was as good before the Coroner as it is now ? A. I don't know about that ; there were some things I know I missed then.



Q. Did the Doctor say that the powders would quiet him down, and if one quieted him, she need not give him another one? A. No, sir; he said, give another in an hour after the first. Q. Was she to give them after he got quiet? A. I believe so; I don't know. Q. You did not give him the second powder? A. No. Q. Why? A. Because he was quiet enough before the hour was up. Q. Then your understanding of the directions was, if he got quiet enough after you had given him the first powder, that you need not give the second? A. I did not hear that mentioned. Q. Was not that your understanding of what was said? A. It was not. Q. Did you not act upon that idea? A. I did; but was very near not doing it.

Q. How was Mr. Coates when you got home? A. He was still suffering from pain.

Q. When was it you gave Mr. Coates the brandy? A. About a half hour, I think, after he took the medicine; I gave him two table-spoonsful of it; I went for it after we got the powders, and got it at Mr. Wells' drug store; he said he would take it, kill or cure; it was more than twenty minutes, after taking the powder, before he asked me for the brandy; he went right to sleep after he took the brandy. Q. What became of the rest of the brandy; did Mrs. Coates get it? A. I cannot say.

Q. Mr. Coates did not use tobacco, did he? A. Oh yes, he did; he was a pretty heavy smoker; he did not chew that I knew of; he might now and then; he used the cut plug tobacco.

Q. What was the reason that Dr. Lutkins would not come with you? A. He sent down word he was otherwise engaged.

Q. What was the trouble with Dr. McDowell? A. I cannot say; he would not or could not come.

Q. Dr. Lutkins is a physician in large practice, one



of the leading men in his profession, is he not ? A. I always understood so ?

Q. How is it with Dr. McDowell ? A. I cannot say ; I have never seen him in my life, to my knowledge ; I believe he was a Mason, and belonged to the same lodge that Mr. Coates did.

By Mr. Garretson : Did Dr. Lutkins or Dr. McDowell send any powders ? A. No, sir.

MRS. ELIZABETH HASSELL,

Examined by Mr. Garretson, testified : I live in South Bergen, and was a daughter of Mr. Coates, and was living there at the time of his death ; he was first taken sick on the Sunday evening previous to his death, complaining of pain between his bowels and his chest ; he sent for the doctor between three and four on Monday morning ; Dr. Wilkinson came and prescribed for him ; Monday night he was pretty well ; Tuesday morning he complained again, and sent for Dr. Lund ; my little sister Grace went after him ; he came, and told father he thought he understood his case ; he did not have his medicines with him, and wanted us to send to his house for them ; we did so, and she brought back an envelop, containing some powders, and a small phial containing a liquid ; I don't know whether they were given or not ; I think I saw my mother give the liquid ; in the evening I sat with him, during the time my mother had gone for Dr. Lund ; when she returned she said the Doctor would be there in fifteen minutes ; we waited awhile, and as he did not come, she said she would go for him again, and did so, my uncle going with her ; when she came back she said the Doctor would not come, but he had sent powders, to be taken every hour until all were taken ; she then gave him one of the powders ; I then retired ; in the night I was awakened by my mother moaning down stairs, and on the way down stairs I



asked my uncle how father was ; I did not stay down stairs more than ten minutes, when I came up to see father ; in going in I passed my uncle coming out ; my father was sitting in the same position ; when I went in, he was getting up out of his chair to fix himself more comfortably ; I told him mother was sick ; he motioned me away, and told me not to bother him ; I asked him if he was in pain ; he said, no, he felt as though he was in heaven to what he was an hour ago ; I then went down stairs to my mother, who was suffering very much, and stayed with her until about half-past four in the morning ; I then went up to see father ; he was breathing very hard ; his face was swelled almost twice its usual size, and his hands also ; his face was of a deep purple color, and the perspiration was pouring off him ; I shook him as hard as I could, but could not wake him ; I then woke Mr. Welch, living next door, and asked him to go for Dr. Wilkinson ; the Doctor came ; he stayed until about nine o'clock, then went away, and came back in about an hour ; I saw no other doctors there as I went for one of the neighbors ; I saw Dr. Lund on Wednesday morning, about seven o'clock, come in the house and go up in the room where father was ; I followed him up, but did not hear him say anything ; my mother said to him that it was a very great loss to her, and he said she had not lost him yet ; he asked me to go down stairs with him ; I did so ; he asked me who sent for those doctors ; I said we did ; he asked me, " Why was not I sent for ? " I said, " Why, Doctor, you told us not to come after you again to-night ; " he asked me who said so ; I told him my mother ; he said " your mother," and looked very much surprised ; I said yes ; he said " that is a mistake, I have said nothing of the kind ; " I said " O, yes, Doctor, for my uncle was with her ; " he asked me who my uncle was or where he was ; my uncle then stepped forward and



told him that he did tell my mother not to come back that night ; he then said that he saw it all, that the powders were intended for a man by the name of Mike Noonan, suffering from delirium tremens, and that he had mistaken mother for Mrs. Noonan ; he then went away ; I again saw him at Mrs. Welch's gate, when he said he was not used fairly at all, that he ought to have been sent for ; Mrs. Welch asked him if he could do anything for father, for, if he could, she was sure the other doctors would give him up ; he said that the other doctors had taken it entirely out of his hands ; I don't think I saw him again ; Dr. Lund, when I was down at the door, asked me to be careful of the medicine that was left up stairs, but gave no reason why he wanted me to be careful of them.

*Cross-examined* by Mr. Dixon :

There was a clock in the front room, and I looked at the time when I went from mother up to see father ; it was then between two and half-past ; I am not sure about the second time, but it was between four and half-past ; my father complained of pain in his bowels that night ; after he took the powder, I went to my room, but I heard mother say, " John, what is the matter ? " and I heard him answer, " Go away, I am mad, I am crazy."

MRS. ANN WELCH,

Examined by Mr. Garretson, testified :

I live in Atlantic Street, Bergen, next door but one to the house occupied in July last by Mr. Coates ; I saw him the Monday before he died, complaining of pain ; he was in his own house ; I saw him next, Tuesday evening, he, as before, being in his own house ; he was not well then, but did not complain to me of anything special ; it was about nine o'clock when I left.

Q. When did you see him next ? A. I don't think



I saw him again until I was called in Wednesday morning. Q. What time? A. It was then between half-past three and four o'clock; Mr. Kelly called me at that time in the morning. Q. How was Mr. Coates when you went in? A. I was not called to see Mr. Coates; I was called to see Mrs. Coates, she was sick. Q. Where did you find her? A. On the sofa, in the front room down stairs. Q. Did you see Mr. Coates? A. When I had stopped a little while with Mrs. Coates, Mr. Kelly came into the room, and I asked him how Mr. Coates was, and he said he was very bad, and I said I must go up stairs and see him; I went up stairs and saw him. Q. How did he seem then? A. I went to him and spoke to him, and asked him how he felt, but he did not speak; I spoke the second time and he did not speak; Mr. Kelly came into the room and I said to him I think Mr. Coates is dying, for he seemed to have great pain when breathing; I said to Mr. Kelly it would be well to have a doctor; he said he was just going down to the city to get the lodge doctor; his daughter, Lizzie, came into the room; I said to her I think your father is dying; she said, "don't say that;" she seemed excited when I spoke to her; I said it would be well to send for a doctor, and asked her would I go; she said she would wait for Mr. Welch to go; Mr. Welch went for Dr. Wilkinson; that was a little before five o'clock; I think Dr. Wilkinson must have been in the house about five o'clock; I was there when he came.

Q. Did you see Dr. Lund there? A. I did; I was there when he came into the room; I couldn't say what time that was; I think it must have been about seven o'clock, but I wouldn't say sure. Q. What did he do when he came in? A. I don't know as Dr. Lund did anything to Mr. Coates; Mrs. Coates came into the room, and said to Dr. Lund it was a loss for her, and the doctor said, that she hadn't lost him yet; Dr.



Lund didn't say anything else that I remember; I don't think he staid there long; when he went out I went down stairs and spoke to him at the door. Q. What did you say to him? A. I asked the Doctor if there was any danger of Mr. Coates, and he said he had just found out his mistake, that he made those powders for a man who was a very hard drinker, by the name of Noonan; I saw Dr. Lund after that: I couldn't say how long, but I saw him just as I was going into my own house. Q. Did you have any conversation with him there? A. Yes; Dr. Lund said, "Is there any change in Mr. Coates?" I said no, and asked Dr. Lund if there was any danger of Mr. Coates; he said the case was entirely out of his hands; I said if he thought he could do anything for Mr. Coates that I had no doubt the other doctors would give him up, and he said, "Not now, it is too late."

*Cross-examination by Mr. Dixon :*

Q. Was Lizzie present at the conversation as you were going into your own house? A. She was with me, but I don't know whether she went into the house or stopped with me. Q. Did Dr. Lund say anything to you about Mr. Coates getting better; whether he thought he would get better or not? A. Yes, he said he thought he would. Q. When was that? A. I think it was when we were standing at the door. Q. The first talk? A. I think it was the first; I am not sure. Q. What door do you mean? A. The front door of Mr. Coates' house. Q. That is where you had the first talk, was it not? A. Yes, sir. Q. Who called you for Mrs. Coates? A. Mr. Kelly, her brother. Q. How long were you with Mrs. Coates before Mr. Kelly came into the room? A. Only a few minutes. Q. Was Mrs. Coates asleep when you went into the room? A. No, sir. Q. Was she lying down? A. Yes, sir. Q. Undressed? A. No, sir,



she was not undressed. Q. What was the matter with her? A. She had cramps. Q. Anything else the matter? A. That is all; she said to me she was taken with cramps. Q. Did anything else seem to be the matter with her? A. No, sir. Q. Had she taken anything for the cramps, did she say? A. She didn't say to me; she asked me to rub her with some dry mustard. Q. Did you? A. I did. Q. Anything else done for her? A. I did not do anything else for her.

Q. Did you give her anything for the pain? A. Yes, sir. Q. What did you give her? A. There was a tumbler with a little brandy on the table in the room where she was lying; she asked me to hand it to her, and I did so. Q. Where was the tumbler? A. On the table. Q. Near her? A. Not very near; it was on the table; she was lying on the sofa. Q. In the same room? A. Yes, sir. Q. Did she drink it? A. Yes, sir, she took a little of it, not all of it. (*Appendix y.*) Q. What was done with the rest? A. It remained on the table. Q. Do you know where the brandy came from? A. I do not. Q. Did you do anything else for her or give her anything else? A. Not then. Q. *When* did you? A. Well, she got up to her bed-room then; I did not help her up, nor I don't remember of seeing her come up, but the next time I saw her, she was in the bed-room. Q. Do you mean Mr. Coates' bed-room? A. Yes, sir. Q. What then? A. Well, I went into the room where Mr. Coates was; he always remained in the front room, sitting in the rocking-chair.

By the Court: Which room did Mrs. Coates go into when she came up stairs? A. In the back bed room; Mr. Coates was in the front room; there was no bed in the front room.

Q. What else was done for Mrs. Coates? A. I did not do anything then. Q. *When* did you next



do anything for Mrs. Coates? A. Well, Mrs. Coates sent into the room where I was for me. Q. She sent out of the back room into the front room? A. Yes, sir. Q. How did she send? A. Well, I think she sent my sister-in-law, or her own daughter. Q. She sent for you; did you go in? A. I did; she asked me if I would not go to the corner store, a saloon, for her; I went to Mr. Bayers.

By the Court: Was that the corner store? A. Yes, sir.

Q. Did she say what she wanted you to go for? A. Yes, sir. Q. What was it? A. She wanted me to go for some brandy; I went to Mr. Bayers and got twenty cents worth of brandy; I got it with some peppermint, and I came home to Mrs. Coates.

By the Court: Was the peppermint put in the brandy then, or did you put it in afterwards? A. In the store.

Q. What was done with it? A. I gave her a little of it. Q. Did she ask you for it? A. Yes, sir; I put the other, that was in the bottle, in a closet that stands in the lower hall. Q. Did you see anything more of it? A. I did not. Q. Did you see any brandy in the back room, or front bed room, while you was there? A. None, except what I brought in.

Q. What sort of a store is Mr. Bayers? A. It is a liquor store, a saloon. Q. Grocery store? A. No, no groceries. Q. When you went up stairs and saw Mr. Coates on Wednesday morning, how did he look? A. He was breathing very loud, and seemed to be distressed with the breathing. Q. Do you mean as if he was snoring? A. Yes, a kind of hiccough I believe he had. Q. Did you notice anything peculiar about his appearance except that? A. He was very warm, looked very hot and bluish. Q. Was he perspiring? A. Yes, sir. Q. Did you touch him? A. I did. Q. Where? A. I put my hand on his fore-



head. Q. Warm? A. Very warm. Q. Were his eyes shut, or open? A. Shut. Q. Did you notice whether his appearance changed during the morning? A. He looked blue when I went in, but on in the day he did not look so blue. Q. What time in the day did you notice he did not look so blue? A. Early in the morning. Q. How late in the morning? A. I could not say. Q. Did he look so blue when he died? A. I don't think he did.

Q. When Dr. Lund came there, were any physicians there? A. Dr. Wilkinson and Dr. Forman were there, and, I think, Dr. Bock was there. Q. In the room with Mr. Coates? A. Yes, sir. Q. That was when he came there about seven o'clock? A. Yes, sir. Q. What did they say to Dr. Lund? A. I don't remember their saying anything to Dr. Lund. Q. You went in right behind Dr. Lund, did you? A. When Dr. Lund came out, I came after him; I don't know whether I went in with him or not, but I was in there when he was. Q. Do you recollect whether you were in there at the time Dr. Lund came in, or not? A. I think I was; yes, I was. Q. In the room where Mr. Coates was? A. Yes, sir. Q. Did you hear any of the physicians say anything about Dr. Lund, just before he came in? A. I don't remember if I did; I think I heard some one say, "Here comes Dr. Lund;" which of them it was I don't know, but some one in the room said, "Here comes Dr. Lund." Q. Did you hear them say anything about speaking to him? A. I don't remember anything said. Q. Have you talked with any of those physicians since? A. Well, I have talked with Dr. Wilkinson, because he is our physician, and my husband has been sick lately; he has been there pretty much every day. Q. Talked with him about this matter? A. I think we merely named it; but I could not tell anything he talked about. Q. Talked about it often? A. No,



Q. More than once? A. Well, I think the most we said, was this—the trial was coming on a week ago, at least we thought so, and I said if it came off, it would be bad if I had to go and leave him. Q. Have you talked with Dr. Avery about it? A. Dr. Avery has been in our house, but I don't know that we have talked about it? Q. Dr. Avery did not attend you? A. No, sir. Q. What did he come for? A. We called him in to see my husband; he has been there several times; we might have talked it over, but I don't remember; we did not like Dr. Avery, and we called Dr. Wilkinson. Q. Had you anything else to talk about with Dr. Avery, except the trial of Dr. Lund; was there anything to bring him to your house, except the time you called him for your husband? A. No, nothing.

*Re-direct examination by Mr. Garretson :*

Q. What sized bottle was that down stairs that had brandy in? A. It was a soda water bottle. Q. That was the bottle down stairs that you found standing on the table? A. No; it was a tumbler standing on the table down stairs; when I went out for the brandy I took the bottle. Q. There was no bottle at all down stairs when you gave her the brandy? A. No; it was in a tumbler.

By Mr. Dixon: How much did you get in the soda water bottle? A. Twenty cents worth. Q. Much? A. Very little; I asked for the best brandy; I told him Mrs. Coates was sick, and he asked me if I wanted some peppermint in it, and I told him I thought it would be good, and he put some into it.

WILLIAM WELCH,

Examined by Mr. Garretson, testified :

Q. Where do you live? A. Atlantic Street, South Bergen.



Q. What relation is the last witness to you? A. Sister-in-law.

Q. How near did you live to Mr. Coates? A. Next door.

Q. Do you remember the time he was sick? A. Yes, sir. Q. What time did you see him after he was first taken sick? A. The first I knew of his sickness was somewhere near ten o'clock Tuesday night; when I got home from New York, my wife told me he had been very sick, had to send for the doctor, and asked me to go and see him. Q. Did you go and see him?

A. Yes; I think it must have been in the neighborhood of ten o'clock. Q. Where did you find him?

A. Up stairs, in the front room; when I went in at the door I was in darkness; I did not know whether he was up stairs or down stairs; I rapped at the door, and he sung out to come up stairs, and I went up stairs; I did not know where he was, and I asked, "Are you alone, Mr. Coates?" says he, "Yes, come right in here;" I went in and had a talk with him for about twenty-five minutes, and then went home and went to bed.

Q. How did he seem while you were there? A. He said he was sick; he told me he had had the doctors; that he had had Dr. Wilkinson before that, and he did not think he was paying much attention to his case, and he had quit him and got Dr. Lund.

Q. What did he complain of? A. He complained, I think, of his bowels; I did not think he was a very sick man; I thought he was more nervous and fidgety than anything else.

Q. When did you see him next? A. About four o'clock in the morning; I said, when I saw the state he was in, "Why didn't you call me sooner? the man is dying, send for a doctor immediately," and somebody said, "Dr. Wilkinson;" I went out and down the plank road, when it jumped into my head, that he



told me the night before that he had quit Wilkinson and had got Dr. Lund; I went back, and on my way back I met James Kelly, and he told me to get Wilkinson, so I went for Wilkinson and roused him. Q. Where did you find him? A. I think he was in bed.

Q. How did Mr. Coates appear when you went in first? A. He appeared to me to be a dying man. Q.

What color was his face? A. It was a bluish color.

Q. How was he breathing? A. He was breathing

pretty hard. Q. What time did he die? A. I think it was a little after twelve.

Q. Did you see Dr. Lund there? A. I saw him down stairs on the stoop. Q. What time? A. Well,

it was after these doctors had been there, for I saw him then talking with Lizzie Coates. Q. Did you

hear what he said? A. I heard him ask her what became of the rest of the powders; she said they were up stairs, and that he wished to get them to preserve them, or for something of that kind; I passed on and went up stairs, and she came directly up after me.

By the Court: State precisely what he did say? A. That is, as near as I can recollect, that he wished to preserve them.

By the Court: State again all that he said? A. She asked Dr. Wilkinson what he had done with the powders; he said, "Who wants them?" she said Dr. Lund wanted to preserve them; he said, "*We will save him the trouble, we will do it for him.*"

Q. Where did Dr. Lund go after he said this at the door? A. I don't know, sir. Q. Did you see him up stairs before you saw him down stairs? A. No, sir.

### *Cross-examination by Mr. Dixon:*

Q. Where were you when Lizzie and the Doctor were talking on the stoop? A. I was passing, going out the door. Q. Did you stop? A. No, sir.



Q. Did you notice whether Mr. Coates continued to look bluish until he died? A. I cannot say whether he continued in that same state all the time or not; he was not a good color all the time; but whether he was as bad up to his death, I could not swear to it.

Q. You say he was fidgety? A. Yes, sir. Q. What do you mean by that? A. I thought he was kind o' cankered when he hollowed to me to "come right up here;" he says, "My folks don't think enough of me to stay in the house with me," and I think he was a little put out at the time.

Q. How long had you known Mr. Coates? A. It will be four years next April.

By the Court: What was the particular business Mr. Coates had to do? A. He run a dummy engine on the Cunard dock.

By the Court: That is hoisting? A. Yes, a hoisting apparatus; he had another man, a foreman, who knew the business as well as he did, and he could trust him with it.

### MRS. MARY NOONAN,

Examined by Mr. Garretson, testified:

I live in Jersey City, foot of Madison Avenue. Q. Do you remember the time Mr. Coates died? A. I heard tell of it. Q. Was your husband sick about that time? A. Yes, sir. Q. Who attended him? A. Dr. Lund. Q. On Tuesday night, near the twentieth of July, or on Tuesday, during the day, did he call to see your husband? A. I went for him between twelve and one, Tuesday. Q. Did he come? A. Yes, sir. Q. What did he prescribe for your husband? A. Well, I could not say, but he gave me a prescription. Q. What did you do with it? A. I went to Mr. Gardner's drug store. Q. What did you get? A. I got a liquid in a bottle for it. Q. Did you see the Doctor again? A. Yes, sir. Q.



What time? A. As near as I can think, it was between ten and twelve at night. Q. At the time you got the first prescription, what else did you get? A. Nothing else. Q. When he came between ten and twelve at night, what did he do? A. He gave me the same prescription. Q. What did you do then? A. I went and got the same bottle renewed. Q. What else did he give you? A. Nothing else. Q. What did he say when he was at your house between ten and twelve? A. I could not tell you what conversation he had with my husband, for I was not in when he came. Q. Did he have any conversation with you? A. He made some remarks. Q. What were they? A. Something about my husband being under the influence of liquor at the time. Q. Anything else? A. No, sir, not as I remember. Q. When did you see him next? A. I never had any more conversation with him; to my knowledge he was never in the house again. Q. He did not come there again? A. No, sir, not to my knowledge, nor I did not go after him when he came that night.

By the Court: You say you went for him the first time? A. Yes, sir.

By the Court: Did he then go to your house? A. Yes, in a few minutes afterwards.

By the Court: He then gave you a prescription? A. Yes, sir.

Q. And then came to your house again between ten and twelve at night? A. Yes, as near as I can say.

*Cross-examination by Mr. Dixon:*

Q. Did Dr. Lund ever attend in your family before? A. No, sir. Q. What was the matter with your husband? A. I could not say. Q. He had been drinking? A. Well, he was not at the time when Dr. Lund left him, but he was afterwards. Q. He



had been drinking some time previous to that? A. Yes, sir. Q. Drinking pretty hard? A. I suppose so; it is pretty hard to say. Q. What was the matter with him when you went for Dr. Lund on Tuesday? A. I could not say; if I knew I would not have to go for a doctor. Q. Don't you think it was because he had been drinking? A. I don't know, sir. Q. Do *you* ever drink? A. I drink tea and coffee sometimes. Q. Ever drink liquor? A. No, sir. Q. *Never* drink? A. Well, if I need it I suppose. Q. Do you need it often? A. No, sir, if I did I suppose I would.

By the Court: The question is whether you *do* drink? A. No, sir, I don't.

Q. Have you children? A. No, sir. Q. How long have you been married? A. Thirteen years. Q. Ever had children? A. No, sir. Q. What is your husband's business? A. Carting. Q. He drank after Dr. Lund was there with the medicine? A. Oh, yes. Q. You did not go for him when he came on Tuesday night? A. No, sir, I did not. Q. Did you send for him? A. No, sir. Q. Where were you when he came? A. I was away for some water. Q. Try and recollect whether you saw him in your house that evening, or whether it was not by the gate you saw him? A. I saw him in both places; the conversation that Dr. Lund and I had, was at our gate, in regard to drinking. Q. Had you taken anything to drink that day? A. No, sir. Q. When did your husband commence to drink? A. Not till after the Doctor was with him. Q. At noon? A. Yes, sir. Q. Was he pretty bad at night when the Doctor came? A. Well, he was. Q. Pretty wild? A. Yes, sir. Q. Do you know when last he drank before the Doctor came? A. No, sir, I could not say. Q. Had he been out? A. No, sir. Q. What he had taken, he had taken in the house? A. Yes, sir. Q. When the



Doctor came, was there any liquor in the house? A. Yes, sir; but he did not have more at the time. Q. Do you recollect how long before the Doctor came in that night, that he had had liquor? A. I could not say; I judge he was taking it pretty often.

By the Court: How long before? A. I could not say.

By the Court: More than four hours, or less? A. It was less than four.

Q. Before the Doctor came in? A. Yes, sir.

By the Court: He was drinking all along you say?

A. Yes, sir, drinking all along that afternoon.

Q. Where had the liquor been procured? A. Jersey City, I believe. Q. What was your husband's name? A. Michael.

By the Court: When the Doctor was there the second time, did he say anything to you about your having been there for him that night? A. I forget, indeed.

By the Court: Just recollect it? A. I could not say, indeed; I suppose he made a mistake in coming, for I did not see him, or go after him.

By the Court: Was anything said about your having been there after him that night? A. Not to my recollection.

By the Court: Either to you or to your husband? A. I don't know, sir; I don't remember if he said anything to me about it.

Q. Where is your husband? A. The dear only knows; I don't know where he is now. Q. Is he about here? A. He may be around some place. Q. He was home to breakfast this morning? A. Yes, sir; I could not exactly tell where he is now. Q. He is a little uncertain I suppose? A. Sometimes. Q. Is your husband a large man? A. Yes, sir. Q. Over six feet isn't he? A. Well, I don't know the length of him, I never measured him.

THE STATE HERE RESTED.



Col. Wm. E. Rogers opened the case on the part of the defense, by stating a few facts he hoped to prove. The defendant occupied to himself the doubly dear position of client and of valued friend : the jury had perhaps gathered, from the line of cross-examination pursued, an idea of the course which the defense were going to take : he claimed that the present trial was, in reality, a prosecution on the part of jealous rivals, a conspiracy to injure the defendant's reputation ; he had little doubt in his own mind, but that a motion made here to take the case from the jury would prevail ; his client, however, wished more than a mere acquittal ; he wished to show his friends and the public *all* the facts, from the very first day when he was summoned to the bedside of a dying man, and found there his bitterest enemies, being met on their part with cold looks and averted faces ; he desired to show how the same evidences of malignity and hatred followed him to the Coroner's Inquest ; by some legerdemain, not yet understood, one of his most important witnesses was not allowed to testify ; the one-sided medical testimony, with no opportunity of eliciting truth or shaking falsehood by cross-examination, was all so strong that the only result was a verdict of guilty ; here, at length, before an able and impartial judge and an intelligent jury, he hoped for justice, and expected to prove that John D. Coates did not die from an over dose of morphine.

DR. JOSEPH PALMER.

Examined by Col. Rogers, testified :

I live in Bergen, and have been an allopathic physician thirty-five years ; I am practicing now, although I was not during the Inquest ; I saw Mr. Coates about nine o'clock the morning of his death : there were no physicians with him at that time ; he was sitting in a rocking-chair, his face flushed, warm and moist skin,



and a slow, full, regular pulse, being perhaps sixty-five beats to the minute; his mouth and tongue were moist, the latter having a slight fur; nothing was being done for him at that time; Dr Lewis and myself then went round to where Dr. Bock lived, and asked him where the doctors were; he said they had gone home, but would be back at about ten o'clock; we then went back to Mr. Coates; the physicians got there about half-past ten o'clock: I think I asked them if they had given stimulants; they said they had not, because he could not swallow; the question was then asked, if in that case, they could not be injected into the bowels; I think they then sent for some whiskey; I remained there until about one o'clock, but saw nothing done for Mr. Coates.

I next saw him at the post-mortem; the brain was congested, and one of the lateral ventricles contained *bloody serum*, there being as much or more blood as serum; the lateral ventricles are connected; the brain was not sliced very carefully, not enough to determine with absolute certainty that there was no effusion; the lungs were much congested and very adherent to the walls of the chest; the crepitation of the lungs was not so distinct as in health; the liver was much enlarged, and the gall bladder filled with a dirty, yellowish, milky fluid; the cystic duct was completely closed up; an attempt was made to find an opening with a small probe, but it did not succeed, and the duct being opened with the knife was found entirely closed; the effect of the adhesion of the lungs would be the same in effect as tying down a blacksmith's bellows; it would prevent the admission of as much air as in health, and so the blood would not get all the oxygen it needs; the carbonic acid in the blood also not escaping entirely, would tend to poison the blood, retard the circulation and so cause congestion; all these causes working together, would obstruct the return of



blood from the head, the congestion would increase and apoplexy would be the result ; I don't know how the bloody serum could be found in the brain, except from the rupture of some small vessel ; that would cause apoplexy and death ; there can be apoplexy and after death no trace whatever of it be found, so it does not necessarily mean an effusion of blood in the brain ; the pus in the gall bladder could be absorbed, and of course would have a material effect upon the blood ; it would poison the blood, and not going to the extent of causing absolute pyæmia would still benumb the brain, paralyze the heart, retard the circulation, cause congestion, apoplexy and death ; the serum of pus is as poisonous as the pus itself, and the serum is the part that would be likely to be absorbed ; the absorption of the pus can cause a great many things : peritonitis, pleurisy, congestion of the brain, multiple abscesses, erysipelas and boils ; I have seen cases of narcotic poisoning ; in one case a man took as much as twelve grains of opium ; I found him with cold extremities, pulse feeble and quick, and all the appearances of a dying man ; he was entirely insensible and could not be aroused ; I gave him some brandy, of the kind called cider brandy ; I put some on his tongue, and although he could not swallow, still in a few moments it went down his throat of itself ; it was entirely involuntary on his part ; he recovered.

Another case, a woman was poisoned by lobelia, and I found her in a state of coma, pulseless and no sign of beating in the heart ; I gave her brandy and she finally recovered ; in other cases I applied the same remedies with the same results ; the difference between the symptoms of apoplexy and narcotic poisoning, are a smaller and more rapid pulse in the latter than in the former, and also a drier skin ; I should also expect in poisoning by opiates a dry mouth and tongue ; it was moist in Mr. Coates ; my theory of the



cause of death in his case was this, the lungs did not properly oxygenate the blood, and absorption of some of the serum of the pus contained in the gall bladder still more poisoned the blood; the result was a congestion of the brain, gradually increasing, all the vital forces being clogged by the stagnating blood, until death came; I should not under ordinary circumstances, as in a strong man accustomed to the use of tobacco and suffering severe pain, consider a grain of morphine as a dangerous dose.

I have given myself four large teaspoonsful of laudanum in an hour, a teaspoonful at a dose; a teaspoonful of laudanum contains one hundred and twenty drops, equal to almost five grains of opium or one grain of morphine; it had very happy effects; I have always been in the habit of giving my own medicines, and to measure them out by the eye, and could do it with the utmost accuracy; I do not think that in putting up two powders of morphine, side by side, from one bottle, that they would vary one-sixteenth in size; I have given morphine in two-third grain doses, once in four hours, for three days at a time; I had become so accustomed to measuring it out by the eye, that I could shake it out in papers, and then equalize the powders by the eye, so that there would be no difference in their weight; if a person had taken a grain of morphine and gone to sleep, slept for awhile, and then woke up of his own accord, asked for a drink and talked intelligently, I should not expect he would go to sleep again from the morphine, but should consider that its effect as a narcotic had ceased; if after that, the person should go into a coma, I should look for some other cause of the coma; I am the father-in-law of Dr. Lund, and attended the post-mortem as a friend of Dr. Lund's, to see that he met with fair treatment.



*Cross-examined* by Mr. Garretson :

I resumed practice four or five weeks ago, by myself and not in connection with Dr. Lund ; I was living with Dr. Lund at the time of Mr. Coates' death ; I commenced practice with my father, in Ashford, Conn., having graduated in medicine at New Haven ; I then practiced three and a half years in Eastford and twenty-nine and a half years in Canterbury, Conn. ; I first heard of the trouble by hearing it talked over either by Dr. Lund or Dr. Lewis at the house ; it was about eight o'clock, but I am not sure about the exact time ; it was about nine o'clock when we went to Mr. Coates', but I am not sure what makes me know the exact time, whether I looked at my watch or the clock in the house ; Dr. Lewis went with me to the house ; I do not think that I knew the house or where to go, but think Dr. Lewis knew the way ; I don't know how far Mr. Coates' house was from Dr. Lund's, but if I must guess the distance, should say a thousand feet ; I don't remember who were in the room, but there were some members of the family there ; Mr. Coates' breathing was stertorous, and the pupils of his eyes were dilated ; I could not say how much dilated they were, or their size, for I cannot think of anything to compare them to.

Mr. Dixon here handed the witness a piece of paper and pencil, suggesting that he should show the size of the pupils by a diagram. He did so, representing by two circles the natural pupil, and the pupil dilated as seen in Mr. Coates' eye.

I cannot give an estimate of the size of the pupil, although I do consider myself expert in measuring quantities by the eye ; but in medicine it is the density we look at : the difference in the pupils depends, naturally, upon the amount of light or shade in a room ; the opening of the eye suddenly, in Mr. Coates' case, might have an effect upon the size of the pupil.



but the effect would be to make it smaller, if there was any effect; but as the optic nerve seemed paralyzed, the light would not probably have any effect upon it; I did not try and see whether Mr. Coates could swallow or not, but believe he could, from what I have seen in my own practice; if we put a liquid in the mouth of a person on his back, it is very apt to run down his throat; I don't know that his pulse did differ very materially from the pulse of a healthy person; I did not then form any opinion as to the cause of his condition, although he resembled very much one or two cases of persons I had seen struck by apoplexy; my treatment in cases of apoplexy used to be bleeding, or giving purgatives to remove the congestion of the brain, but I never gave stimulants in apoplexy; I recommended stimulants, not from any impression I had received from the appearance of the man, but if they were treating him with the *honest* supposition that he was poisoned by morphine, I wanted to know why one of the best remedial agents was not employed; nor had I then fully made up my mind what the trouble was, so that I would not say that I was advising a remedy for one trouble when I thought he had another; I did not make my mind up until after the post-mortem examination; if I had then not seen him at all before, and knew nothing more about the case than what I then saw, I should not have thought brandy a proper remedy, because I should have considered the brain trouble of the kind that would have contra-indicated it; I had heard that morphine had been given; I don't think I even recommended brandy to be given, but asked if it had been given, as it is such a good remedy in opium poisoning; I did not suggest either bleeding or the use of purgatives; I do not think I recommended anything, but only asked if certain things had been tried; I don't know, however, as the remedy for



apoplexy occurred to me at all at that time, nor do I say that I then even thought he was suffering from apoplexy; I think now that I went from Mr. Coates', with Dr. Lewis, over to Dr. Bock's, and with them back to Mr. Coates' again, but whatever I testified to before the Coroner is more likely to be correct, as being nearer the time of the occurrences; so probably, as I testified then that I went from Dr. Bock's, home to Dr. Lund's, and then from Dr. Lund's to Mr. Coates' again, that is probably the correct statement of the case; what I swore to before the Coroner was more probably correct, than my recollection now; Dr. Bock lived near Mr. Coates' and about the same distance from Dr. Lund's house; when we got there the second time, there were no doctors there: they came about half past ten o'clock; I don't remember whether anything was said in regard to what remedies were used; the galvanic battery was sent for soon after the doctors' return; Mr. Coates had been removed into an adjoining room; I remained by myself in the front room, and did not go with the other doctors into the other room; as I testified before the Coroner that it was about one o'clock when I left, that is probably right; so I was there two and a half hours, doing nothing, and did not see Mr. Coates after he was removed into the other room; Dr. Lund and Dr. Lewis went away after the other doctors came; they had not done anything I know of for Mr. Coates.

I do not know when I examined the pupil, whether belladonna had been given or not, but it is my impression that it had been. The effect of belladonna is to dilate the pupil, and opium to contract it. In apoplexy the pupil may be either contracted or dilated. The condition of the pupil, therefore, is no certain test. The symptoms of opium poisoning are drowsiness, stupor, coma, death; also dryness of skin and mouth. It also lowers the volume of the pulse.



There might be in the first place a flush upon the skin, but when coma comes on, we then have paleness. The breathing would be stertorous, and lessened in number, say about twelve to a minute. The symptoms of apoplexy are stertorous breathing, a dark flush in skin, and a depressed state of the system. I would not here expect a small quick pulse. The difference between the symptoms of morphine poisoning and apoplexy, are the absence of that purplish hue in the former, that we have in the latter; also in the latter we have a moister skin. The pupil in morphine poisoning is more generally contracted, and in apoplexy more generally dilated. Apoplexy, speaking generally, is congestion of the brain, with or without effusion of the blood, or serum, or both. There have even been cases of apoplexy, where there was no congestion visible, nothing to show the cause of death; I can imagine a case where from some cause there may be an impression upon, or depression of the brain, which would cause apoplexy. It might perhaps be, that a sudden rush of blood to the head would prove fatal. I think I remember a case where a man of apoplectic habits, on sudden exertion, or bending over, immediately died. I think there was a post-mortem, but am not sure. Have not a very clear idea where the serum in serous apoplexy comes from; cannot tell how the serum gets separated from the blood. Morphine affects the system through the blood. Cannot name the particular arteries which supply blood to the brain, as I have of late years forgotten much of the minutæ of anatomy. Am not very familiar with belladonna, only I know it is very poisonous, and dilates the pupil. Think the blood at the post-mortem was fluid, but not particularly well marked. The left ventricle of the brain contained bloody serum, and I think that there was more blood than serum. The liver was enlarged, but



saw no particular disease about it. Am not positive whether the gall bladder was much enlarged or not, and forget what I testified before the Coroner's Jury on this point. The effect of the adhesions upon the lungs would be an indirect one. They would prevent the lungs from expanding properly, taking in the usual amount of air, and, therefore, the blood would not receive as much oxygen as it ought to, and the venous blood would not be entirely changed to arterial. Tubercles also prevent the whole amount of air from being inhaled. I think that the poisonous part of pus is the serum. Pyæmia is a general name for poisoning by pus. I know that we can have boils from it, as I once accidentally cut myself at a post-mortem, and had after it about twenty-five boils upon the arm of the hand that was cut. If I had ten grains of morphine in a bottle, I think I could measure out one grain very accurately. I never gave one grain of morphine itself, at a dose; think it would be safe in some cases, and dangerous in others. If I had a severe case of cholera-morbus, should not hesitate to give one grain at a dose, and not weigh it out. In the case I alluded to where I gave the laudanum, if the pain had come on again, I should not have hesitated to have *sent* one grain of morphine, and not gone myself. If I had not seen the man before, and knew nothing of his constitution, I should not of course do so. One visit, however, would be enough to teach me his constitution, and what he would bear. If he had congestion of the lungs, it would make the risk greater. Do not remember where I saw Dr. Lund the morning Mr. Coates died.

*Re-direct examination by Mr. Dixon:*

Morphine is a proper prescription for a man with delirium tremens, even in two grain doses. I think Dr. Lund was sick at that time. I gave him both advice and medicine.



Mr. Garretson: Was he attending to his practice then? A. Yes, sir.

By the Court: Do you remember anything about this particular night? A. I heard the bell, and think I called the colored boy myself, as his room was next to mine, to go down to the door. Q. Where does the Doctor keep his medicines? A. In the room occupied by Dr. Lewis. Q. Was Dr. Lewis at home that night? A. I think he was.

Dr. J. J. Craven was here called, but did not respond.

Col. Rogers complained to the Court of the difficulty experienced by the defense in procuring the presence of physicians of the old school, for the purpose of getting their testimony. He then read the following affidavit:

State of New Jersey, }  
Hudson County. } ss.

Wm. H. Barrett, being duly sworn, on his oath saith, that on this 12th day of December, 1870, about the hour of 9:30, in the forenoon, at Jersey City, in said County, he served a copy of the within subpoena on Dr. J. J. Craven, personally, by handing the said copy to the said Craven, and leaving the same with him, at the same time showing him the within original, and at the same time handing to the said Craven the witness fee of fifty cents. That the said Craven remarked at the time deponent served upon him the said subpoena, that he should not come.

WM. H. BARRETT.

Sworn to before me this 12th }  
day of December, 1870. }

ALBERT S. CLOKE.

Col. Rogers then asked for an execution against Dr. Craven, to compel his attendance.



By the Court: In this case, it is proper to use compulsory force to oblige the witness to come; it shall, therefore, be done.

DR. JAMES W. ELLIOT,

Examined by Mr. Dixon, testified:

I am an allopathic physician of twenty-two years practice; I do not know Dr. Lund. My practice has been in New York. I have followed this case as it came out. Morphine is generally used to allay nervous irritability, inflammation, pain, and to cause sleep.

Q. Doctor, if you had a man with severe pain, and you should give him one-half or one grain of morphine, and he should become quieted, sleep an hour or so, and then wake up, be rational, converse about his business, remain awake twenty or thirty minutes, and take a drink of tea, would you then consider there was any danger from the morphine? A. Certainly not.

Witness continued: If the stomach were empty when it was taken, in ten or fifteen minutes nineteen twentieths of it would be absorbed; *if its effects were to be fatal it would be continuous in its action; the sleep that supervened would be unending, unless some strong means were used; you could then get some signs of life, but not an intelligible state, so as to carry on a conversation*; I frequently have given a grain; I have even known a two years old child to take three and a half grains of morphine by mistake, and yet live; my practice in giving large doses is to give one grain first, and then repeat one-half grain doses, at intervals of every half hour as long as was necessary; I never staid myself to give it or see it given; I have known one ounce doses of laudanum (960 drops) to have been frequently used for suicidal purposes, but never successfully when remedies were afterwards used; I remember a case where one-half an ounce of laudanum



was taken to commit suicide, and I recommended that it be allowed to work, fearing no danger, in order to cure the person of his suicidal tendency; there are full six grains of morphine in one ounce of laudanum; in actual practice there is really seven grains equivalent; this is not according to the books, but they exaggerate the strength of morphine very much; from one-half to one grain of morphine is an ordinary dose for a man in pain; for a strong, robust, laboring man, threatened with delirium tremens, I should give from two to three grains at a time; in some cases would have to repeat the dose; never gave less than ten drops, or one-half of a grain, of Magendie's Solution at a time for the relief of pain.

Mr. Dixon: If after the train of symptoms I have already given to you, the man should again go to sleep, become comatose, have livid skin, profuse perspiration, cold surface, contracted pupils, inability to swallow, with a slow and full pulse, and then have eight grains of belladonna injected into his system, and die in nine hours, then after death be kept upon ice, and the post-mortem should show congestion of the body, bloody serum in one of the ventricles of the brain, small lungs bound down by adhesions, enlarged liver, distended gall bladder, filled with decomposed pus, closure of cystic duct, striations of colon, containing impacted fæcal matter, would you think he died from morphine or from some other cause? A. From some other cause undoubtedly. Q. What other cause? A. Some poisoning of the blood, perhaps from absorbed pus; that would cause apoplexy. A. Do the symptoms indicate apoplexy? A. No, sir, the symptoms before death do not, except the collapsed condition of apoplexy; but from the post-mortem appearances should say decidedly *he died from apoplexy*; I have seen contraction of the pupil frequently in apoplexy, especially in simple apoplexy; there is no general



rule about it; in the later stages of morphine poisoning or apoplexy, there is very little difference in the symptoms of either; in the early stages should have a fuller and more regular pulse, and a more congested condition of the skin in apoplexy; the bloody serum found in the ventricle of the brain was the main cause of death in this case; in narcotic poisoning the post-mortem congestion is not well marked as it was here, but it is in apoplexy; in pyæmia the fragility of the liver is not even common; I have seen a great many cases where it was absent; I do not consider belladonna an antidote to morphine; it relieves the symptoms, as in dilating the pupil of the eye, but it does not have any influence over the case; it would be very injurious in apoplexy.

*Cross-examined* by Mr. Garretson :

I never saw Mr. Coates; I have a general practice, and am now in practice; morphine affects the system by controlling muscular contractility; Dover's powders contain opium, ipecacuanha and sulphate of potash; I have given sixty grains of it at a dose, equal to six grains of opium, equal to one and a half grains of morphine, as proved from actual practice and not from the books; in pain I do not give over one grain of morphine, but in delirium tremens give more; books in many cases are wrong; in severe pain I should give one grain first, and then repeat one-half grain every half hour, as long as the pain lasted; if I repeated such a dose every fifteen minutes, I should remain with the patient, but should not do so if I did not repeat it any oftener than once every half hour; if I had seen the patient a short time before, I should not hesitate, if it was indicated, to send one grain of morphine without seeing the patient, if I gathered from the messenger his present condition; neither should I hesitate to repeat the dose; if I knew he was suffering



from congestion of the lungs, I should not, however, do so; I have given, though, one-half grain doses in congestion of the lungs, for pain accompanying it; we have to here use more care, as the vital powers are not as strong as when there is no lung trouble; this is not, however, because the morphine would tend to produce the congestion, but because it affects the muscles of respiration; apoplexy is congestion, with or without an effusion in the organ; congestion is the filling of the vessels with a liquid, and its remaining there; apoplexy may be a result of the condition of the blood; if there was a tendency to apoplexy, morphine might assist that tendency; morphine can be found in the body after death, even when it has been given in a very small dose; if only one-sixteenth of a grain was given this might be true.

By Mr. Garretson: Suppose you found a man suffering from these symptoms: the pupils contracted to the size of a pin's head, surface blue and livid, cold perspiration, stertorous breathing, respiration twelve to a minute, pulse slow and full, what would it indicate? A. Congestion; the respiration being twelve to a minute, would lead me to believe that it was *not* narcotic poisoning.

Witness continued: If I knew that he had taken morphine, should act on the supposition that he was poisoned by morphine, but should not think he was poisoned by one grain; I consider it impossible for one grain of morphine to kill; should not think it could, even if the lungs were weak; should think there was more than one grain of morphine, *or that some other narcotic had been given*; the condition of the lungs would not have much influence upon the size of the dose.

Q. Has there been cases where morphine has not acted in fifteen minutes? A. If we do not have coma in one-half an hour, I do not think we will



have it at all ; I do not think that there are any cases so recorded.

Mr. Garretson referred the witness to Beck's Medical Jurisprudence, second volume, page 790, where twenty-five grains of morphine were taken, and the appearance of coma delayed.

Mr. Dixon then turned to the place himself, and remarked, after reading the case quoted, " Yes, Mr. Garretson, but if you will read a little further in this case you will see that the man recovered.

Mr. Garretson to witness : How many cases of morphine poisoning have you seen ? A. I cannot exactly say, but in twenty-two years' practice have seen perhaps from fifty to a hundred ; I think, out of that number, five or ten have been fatal, in all of which I saw a post-mortem : there was very *little congestion* present in these cases.

Q. How many cases of pyæmia have you ever had ? A. It is hard to tell ; I have seen about twelve fatal cases.

Q. Has the pus in these cases ever been absorbed from a cavity ? A. Yes, sir ; in several cases ; in one case the pus came from an abscess in the liver, and in another, from the uterus.

Q. Did you ever know a case where it was absorbed from the gall bladder ? A. No, sir. Q. What is the probability of its coming from that place ? A. There is not the slightest doubt but that it could ; the fact of the bloody effusion in the brain is a strong point to show he died from poisoning of the blood by pus ; if I had not seen the pus in the gall bladder, but had seen the rest of the post-mortem, I should have said he died of pyæmia, or uræmia, from the presence in that place of the bloody serum ; that is my first reason why I do not think he died from morphine ; second, the rapidity of the breathing is a strong point against that supposition ; third, the *general* congestion ; fourth,



the time of giving the poison and his arousing himself. In pyæmia persons may die with coma; nine, out of the twelve I saw, died comatose; the pain in the head is usually sharp and severe; we usually look for fragility of the liver in death from pyæmia, but seldom find it; I did not find it in one half my cases; I should not think there could be a question about the man's *not having been poisoned*, if he woke up of himself.

By Mr. Dixon: Doctor, in your practice, have you ever mistaken individuals and gone to the wrong house? A. Yes, frequently, especially at night.

Q. If you had seen two women, both in the common walks of life, thereby resembling each other in dress and manner, for the first time, the previous day, while attending their husbands and paying no attention to the women themselves, and one of them should come to your house late at night, give no name, street or number, simply say, my husband is worse, come and see him, would it be strange if you should make a mistake by confounding one with the other?

Question objected to, and objection sustained.

DR. F. B. MANDEVILLE,

Examined by Mr. Dixon, testified:

I am a homœopathic physician, residing at 940 Broad street, Newark; have known Dr. Lund three years; I am familiar with the effects of morphine, and have used it in my practice; the largest dose I ever gave was three grains, in a case of sciatica; the patient was a female; I would not consider one grain as probably fatal, when a person has pain; there is *never any remission in the sleep* if the case is fatal.

Q. If you had a man with severe pain, and you should give him one-half or one grain of morphine, and he should become quieted, sleep an hour or so, and then wake up, be rational, converse about his



business, remain awake twenty or thirty minutes, and take a drink of tea, would you then consider that there was any danger from the morphine? A. I should think the effect had gone away.

Q. Are you familiar with apoplexy? A. I am; there are three kinds—the first and second having a sanguineous or serous effusion, and the third no effusion at all; in all there is a tendency to coma, dryness of the fauces and dilation of the pupils.

Witness continued: Usual dose of Magendie's Solution is from five to ten drops, and in severe cases even more.

A prescription was here shown Dr. Mandeville, which he recognized as one of his own.

Q. How much of morphine did you give in this case? A. I gave one and a half grains at the first dose; although I call myself a homœopathist, I give morphine whenever it is indicated; we have a law governing our school, and with that law the size of the dose has nothing to do.

*Cross-examination by Mr. Garretson:*

The largest dose I ever gave was three grains; when I was in a hospital I frequently gave morphine, and sometimes in dilutions; in delirium tremens, if I gave one grain or one and a half grains of morphine, I should watch my patient.

GEORGE HASLETT,

Being examined by Mr. Dixon, testified:

I live within two hundred feet of Mr. Coates. I knew the deceased six years before he died. I was in his house the Tuesday night previous to his death. I found Mr. Coates in a rocking chair. He said he was sick, and in reply to my inquiry how he was sick, said he had pain right here (placing his hands



on his stomach). He said he had had Dr. Wilkinson, but did not like him, as he did not pay much attention to him, and did not seem to know what the trouble was. So he had sent for Dr. Lund, a homœopathist. I said, to him, that I did not believe in homœopathy. He replied that he did, for Dr. Lund came and examined him, and told him where the trouble was. I asked him if his lungs were affected, and he said that perhaps they were. His breath seemed short. I then bade him good night and said, I hope you will be all right in the morning, when he replied, I shall be all right when I am in York Bay Cemetery; I have more the matter with me than the doctors understand. I have known Mr. Coates to have been complaining before, but not to be in bed. Last winter he asked me to try and get him a purchaser for his house. It was so far to the city, and he had to work so late in a hot place, and then come up to the hill, that he could not get over a cold he had. I have known him to be taking a cough medicine within six months of his death. He also was taking an egg and gin for some trouble about his urinary organs. He said he heard me speak, but it hurt him to answer. The next morning when I went in, I found Drs. Wilkinson, Bock and Forman there. I asked them what Mr. Coates had taken, and they said some powders, given by a homœopathist. I asked them if it was not necessary for Dr. Lund to be there. Dr. Wilkinson said he was just thinking of it. I said I would go for him, and no one objecting I did so. Dr. Lund arrived after my return in about twenty minutes, at about a quarter to seven. When Dr. Lund was entering the yard from the street through the gate, Dr. Wilkinson saw him through the window, and said, here comes Dr. Lund now, let us not recognize him as a doctor. (*Appendix c.*) Dr. Lund then came in, took off his hat, and saluted them



by saying good morning, doctors. They made no answer to him, neither did they look him in the face. Dr. Lund sat down beside me on a trunk for a few minutes, and then rose and left the room. The other doctors never spoke during the whole of that time.

*Cross-examination :*

Mr. Coates worked on the Cunard Dock. Saw him next after Tuesday night, at six o'clock the next morning. I am sure about the time, as none of the doctors had a watch, and so borrowed mine. After I was called, I jumped my fence, and went right to his room. No one was there when I went in, but the doctors soon came in. They wanted to feel his pulse, and so borrowed my watch to do it. I did not hear Dr. Wilkinson suggest to any one to go for Dr. Lund. He lived three blocks distant. I saw Dr. Palmer at the house, and asked him to tell Dr. Lund that Mr. Coates wanted him. I did not then see Dr. Lund, not until he came into the sick room. When he came in, Dr. Wilkinson was sitting about the middle of the room, and the other two doctors on the other side of Mr. Coates. I had not at any time seen them do anything for Mr. Coates. The doctors did not look at Dr. Lund while he was in the room, nor speak to him even to return his salutation; they all hung their heads and did not look up until he left. Dr. Lund did not feel of Mr. Coates' pulse. When Dr. Wilkinson made his remark about Dr. Lund, he could see him out of the window plainly. I did not see Dr. Lund again that day. I believe that I did tell Mr. Welch about a week or two afterwards, that I did not tell Dr. Lund that Mr. Coates wanted him, and wondered how he knew where to come; but I am sure that I told the old gentleman, who came to the door, that Mr. Coates wanted Dr. Lund.



## DR. J. J. CRAVEN,

Having been persuaded to appear as a witness, and being examined by Col. Rogers, testified:

I am a physician of the old school. Was a Brigade Surgeon in the U. S. Army. In the year '63-'64, was Medical Purveyor to the Army of the South. Have been in practice sixteen years. Q. Doctor, while you was at Fortress Monroe, did you have a case of morphine poisoning? A. No, sir. Q. Case of belladonna poisoning? A. No, sir. Q. Did you ever have a case of belladonna poisoning? A. Not at Fortress Monroe. Q. Where then, Doctor; don't evade the question? A. At Hilton Head. (Dr. Craven here appealed to the Court, that as this was a case of belladonna poisoning, and not morphine, it would not be necessary for him to give it, and for certain reasons he would prefer not to do so).

The Court decided he must give the case, but he need not mention names.

It was in '63 or '64, that a medical officer visited the South and stayed with me. One morning not feeling well, by mistake, he took from his pocket a powder of morphine—three or four grains in amount—and swallowed it, thinking it to be quinine. I applied the nitric acid test to some that remained in the paper, and found it to be morphine. He refused to take anything then, but filled a pill-box with belladonna, and put it in his pocket. After breakfast we sailed for Pulaski, sixty miles distant. He took at short intervals doses of the belladonna; as he took so much I cautioned him, saying, I am afraid you are taking too much. Leaving him for a few moments and returning, I found him insensible, with all the symptoms of poisoning by belladonna, stertorous breathing, and it was only after long exertion that his life was saved, and then only after giving him opium to counteract the belladonna.



Q. What is a poisonous dose of belladonna? A. A grain would be a dangerous dose for some people. Q. Is eight grains of belladonna injected after poisoning by morphine a dangerous dose? A. If it were injected as often as the syringe could be filled it would be dangerous. Q. Are you sure in the above case the coma was from belladonna and not from morphine? A. I am, sir. Q. What is the largest dose of morphine you ever gave? A. One grain or one and a half grains; I have given a teaspoonful of Magendie's Solution (two grains). Q. Suppose you gave one grain of morphine to a laboring man, and he slept an hour and a half, and then woke up of his own accord and conversed intelligently, would you think that the effects of morphine had gone? A. I should, sir, feel at ease concerning him; I should not then expect him to go into a coma.

*Cross-examination :*

I should only give a grain when a lesser dose had failed, and not then without seeing the patient; if I had given the morphine, and afterwards found symptoms of morphine poisoning, I should think it was morphine; but if he had gone to sleep and woke up as he did, I should want *strong evidence* to convince me; I believe that belladonna is an antidote to morphine, most certainly; if I had been called to a patient with his symptoms, I should have looked in several directions for the cause; I should look for apoplexy first; seeing the contracted pupil would make me look for drugs; if I found he had taken *large* doses of morphine, should then believe he was poisoned by morphine; I should, however, inquire into the quantity, time of giving it, and the history of the case; if after the post-mortem I should find general congestion, that would not necessarily name a drug, even with my previous knowledge: it would only indicate a sudden



and violent death without hæmorrhage; if I found nothing but congestion it would be difficult to say what he died of; adhesions of the lungs would not necessarily tend to apoplexy, but would be injurious in subsequent lung diseases; morphine causes cold perspiration.

By the Court: In the case you have given us, where your friend had taken the morphine and then the belladonna, if he had died what would he have died of? A. Of poisoning by belladonna.

Witness continued: The effect of morphine upon the mouth is to cause the lower jaw to fall; the pupil of the eye may be contracted in apoplexy.

MICHAEL NOONAN,

Examined by Mr. Dixon, testified:

Although subpoenaed yesterday, I could not come, as I was sick and under the care of Dr. Lewis; know Dr. Lund; I live in Jersey City, Plank Road; Dr. Lund visited me the night Mr. Coates was sick, some time about ten or eleven o'clock; did not send for him then; the Doctor asked me what the trouble was, and I told him it acted to me like the shaking ague; I had been drinking, and bad rum too; I am thirty-seven years old, and am a cartman; I weigh one hundred and eighty-four pounds, and am six feet one inch in height; do not remember whether the Doctor asked me why I had sent for him.

DR. WM. HENRY LEWIS,

Examined by Mr. Dixon, testified:

I am a homœopathic physician of nine years practice, and was in partnership, in July last, with Dr. Lund; remember the night of the 19th of July perfectly; that day I called with Dr. Lund upon Noonan, and told him he had a bad attack of bad rum; Dr. Lund the same day was called to Mr. Coates; I only know



what the matter was from what Dr. Lund told me on his return; he said "Mr. Coates is suffering from a severe pain in the region of the liver, pain in his head, and short difficult breathing; I want you to see him to-morrow;" I suggested nux vomica and bryonia as good remedies for him, and he told me afterwards that he had put them up and sent them; I don't know when Dr. Lund retired that night; I came in about half-past ten, and met him within twenty feet of his gate, coming home, as he said, from Mr. Noonan; he went up stairs into his chamber, and I suppose he went to bed; about midnight he came into my room—I slept in the office—and said Noonan was making trouble; that he was nervous and drinking freely, and his wife had said he had plenty of liquor in the house; we had some further conversation, and then decided upon the remedy, which was morphine, in half grain doses; I took the bottle of morphine out of my vest pocket and shook out three powders, each containing one-half grain, upon the papers; Dr. Lund folded up the papers, took my directions for giving them and left the room; the directions were to dissolve one powder in a tablespoonful of water, being careful to give the whole, and if no relief came, to repeat it in an hour.

I am certain the powders only weighed one-half a grain; I had weighed into the bottle eleven grains of morphine; I had taken two doses of one-half a grain, and then I weighed the contents after the three powders were taken out, and they weighed just nine grains, making one and a half grains for the three powders, or half a grain for a powder; they were as near alike in size as three powders could be made; it is *utterly impossible* that one powder should have weighed twice as much as the other; there were no lumps in the powder; I have frequently measured out one-half a grain of morphine; when I commenced



practice I used to weigh out medicines, to accustom myself in guessing at their weights; I have, at the request of Col. Rogers and Capt. Cloke, put up one-half a grain of morphine by guess, and given it to one of them to have it weighed; it was utterly impossible, as I put up those medicines, for one to weigh one grain and eight hundredths and the other six-tenths of a grain; I saw Mr. Coates the next day, in company with Dr. Palmer, at about five minutes past nine; I found him in a chair, in a state of coma, stertorous breathing, slow and peculiar pulse, and pupils very much dilated; I did not notice about perspiration, but it was warm enough to start perspiration in any one; there were no physicians there; we then went round the corner to Dr. Bock's, and from there we returned to Dr. Lund's; at half-past ten I again saw Mr. Coates; there had been no marked change, neither were there any physicians there at that time; Drs. Forman and Bock soon came into the room; they then removed Mr. Coates from my sight into another room; they did not consult with me, but I asked them some questions; I did not again see Mr. Coates until the post-mortem; the brain was in an unhealthy condition, the left ventricle being filled with *bloody serum*; also there were marks of congestion present; the left lung was so tied down to the diaphragm and walls of the chest, that the man who separated them was red in the face, he pulled so hard to break them; the right lung was adherent, but not so much; the lungs themselves were congested, but not much; on opening the abdomen, the liver was seen reaching over to the right side; they were going right along with the post-mortem, when I said to Dr. Wilkinson, "Pretty large liver, isn't it?" he said, "No, guess not;" I asked him if he would not look a little closer, when he then directed it written in the report that it reached as far as the left mammary



line; it was quite an unusual size, and the congestion did not account for the size; a liver may be very much congested, but no larger than natural; next, the colon was much out of place in its different sections; the gall bladder was examined and found to contain a dark, grumous substance that smelt badly; the lining membrane had a very unhealthy look; it proved to be pus; the cystic duct was entirely closed. (*More definite than saying it would not admit a small probe.*) The above were all the symptoms of disease we found; the post-mortem was rather different from any I ever saw under those circumstances; we never allow a body to be put upon ice, and we weigh everything that can be weighed, so as not to *guess* that such an organ was "about" a healthy size, or such a cavity contained "about" so much serum; nothing was weighed here; the temperature was "guessed" at as about 80°, there being no thermometer in the room; there was no care taken with the stomach, as I always presumed to be necessary, if it was to be submitted to an analysis; it was first laid on the body and then upon one corner of the table, which was a painted door; the jar was brought from down stairs, and was not a new jar, as the question was asked if it was clean; it was not washed in my sight; neither the opinion of Dr. Palmer nor myself was asked; we were not there by invitation; Dr. Wilkinson decided that the lungs crepitated healthily, and I decided they did not; I commenced the study of medicine at Harvard College, then at Jefferson College, Philadelphia, and graduated at Bellevue Medical College, New York.

A diploma from Harvard Medical College to Dr. Oscar F. Lund was here shown to Dr. Lewis, and recognized by him as genuine.

Witness continued: I thought Mr. Coates died from congestion of the lungs; the bloody serum in the brain



was abnormal, and may have been the cause of his death, which in that case would have been apoplexy; the pus in the gall bladder could have been absorbed, as there are more absorbents there than elsewhere, they having a particular office to perform, to thicken the bile by taking up the watery part; I never have given over a grain at a dose of morphine, but have given it more than once; I gave it yesterday; I was called to Michael Noonan, and found him in a tremulous condition, approaching delirium tremens, and with colic; *he was in the same condition as he was when Dr. Lund last prescribed for him at the time of Mr. Coates' death*; in the presence of witnesses I had a grain of morphine weighed out at Mr. Gardner's, gave it to him in water, rinsed the tumbler, and made him drink the water, so as to be sure that he got it all; it had no effect upon him whatever, and it was some hours before he went to sleep; it did not flush his face nor create any excitement; I feel certain that one grain could not have produced death in Mr. Coates; *the effects of morphine are continuous*, and, from the time it takes hold, it does not let up; a man would not wake up of his own accord, if he were poisoned by morphine, unless he recovered; Dr. Lund had not been well all summer, and was not at that time capable of much exertion.

I had once, in my own family, a case of belladonna poisoning, and the jaws were rigid. The dose of the extract of belladonna and of morphine is the same. Belladonna may produce coma. I should expect serious effect from eight grains of belladonna. It would increase the danger of apoplexy, as it tends so strongly to the head. I should call the administration of eight grains as *heroic* treatment.

*Cross-examined:*

I went into partnership with Dr. Lund the 17th of January, 1870, and we dissolved the 1st of October,



1870. I did not see any symptoms of pyæmia in Dr. Lund's description of Mr. Coates' condition, nor did I consider it a clear case; the bryonia was for the lung symptoms, and the nux vomica for the pain; when the bell rang that night, I heard the colored boy go to the door, and heard Dr. Lund say I will not go to your house again to-night; he was at the head of the stairs when he said it.

Q. Did Dr. Lund say I will not go to your house to-night? A. He said I will not go to your house *again* to-night; he also said stay there, and I will be down in a minute; I could not hear anything said at the door; he came into my room before he went down stairs; I next saw Dr. Lund at half-past seven the following morning; he came into my room as I was dressing, and said that the medicine intended for Noonan had gone to Coates; that he had been there, and the family told him that he was dying from the effect of the powder; I said give yourself no concern, it is an utter impossibility; he said he had done nothing for Mr. Coates, as the doctors refused to notice him, and seemed anxious to look in some other direction, so that he felt he was not among friends, and came away; he said he did not talk with the doctors, for their manner was such that he was completely dumbfounded. At nine o'clock I went down with Dr. Palmer, and found no physicians there; I did not examine Mr. Coates very carefully, and was not in the room five minutes; I went after Coroner Burns myself, as soon as I returned from Dr. Boeck's; I saw Mr. Coates was going to die; had been told that he was poisoned, and so wished the Coroner to see him before he died; when we got to the house we found Dr. Palmer and Dr. Lund at the foot of the stairs; they went up into the room with us; there were no physicians there then; when they came in, I asked them what they had done; they told me; I



asked if they had given any stimulants ; they said he could not swallow ; I asked if it was not customary when a man could not swallow, to inject the remedy into the bowels ; they said yes, and sent for a syringe and whiskey ; Dr. Forman picked me up suddenly by saying, " I suppose you acknowledge that it was morphine you gave ? " I said " certainly, sir ; " I did not know that morning what was the matter with Mr. Coates ; the only sign I saw of congestion of the lungs, was the difficult breathing ; the other symptoms might indicate apoplexy or pyæmia ; I should not have given brandy, nor did I advise it ; if I had known he was poisoned by morphine, I should have known what to do ; neither Dr. Lund nor myself did anything for him, for he was not our patient then ; he was our patient the day before, but when he sent for Dr. Wilkinson, he became Dr. Wilkinson's patient. At the post-mortem, the blood in the body was the same as you would expect to find in any dead body ; the bloody serum in the ventricle could come from the rupture of a vessel, and effusion ; I do not remember the name of the particular artery that supplies the ventricle, but it is derived from the Circle of Willis, formed by the opthalmic anterior and middle cerebral arteries, and the anterior communicating artery ; could not say how much serum there was in the ventricle, but there was more serum than blood ; did not see any one examine to see if there was a rupture of an artery to cause the bloody serum ; I looked, but did not see where the blood came from ; the adhesions in the lungs may have existed for years ; they would increase in strength without new inflammation ; these adhesions would tend to impoverish the blood, and cause disease ; congestion may be caused by the stagnation of the blood, consequent upon blood poisoning, like pyæmia, uræmia, etc. ; congestion of the lungs may cause an effusion of bloody serum in the ven-



tricles of the brain; the heart was natural, as far as could be seen with the naked eye, but in order to settle it, we should need to examine it by the microscope; the liver was very large, extending four inches further to the left than natural; inflammation of the gall bladder would not materially affect the lymphatics so as to prevent absorption of its contents; the unhealthy condition of its mucous membrane might even hasten absorption; I have made a great many post-mortems, but do not remember the exact number; I am happy to say that they were not all confined to my practice; I have given one grain of morphine after a double amputation; never heard of it as a remedy for pyæmia; I weighed the morphine into the bottle on the 2d of July, 1870, because I went that day to Long Branch, and took my medicines with me; it then weighed eleven grains; I took the morphine myself on Sunday, July 10th, 1870; I was then in Bergen, having returned Friday, the 8th; my doses were one quarter of a grain each; I next weighed it the day Mr. Coates died; it had been in my vest pocket all the time.

Mr. Garretson here showed some powders to Dr. Lewis and asked him to tell how much they weighed.

Witness: I don't know what the powder is, in the first place, whether it is morphine, arsenic, quinine, or something else; in the second place, I cannot tell how much it weighs, as it has been compressed so much; if I have a bottle and know what is in it, and how much it is packed, I can then guess at the weight of powders, but will not do anything of the kind when I know nothing about the preparation of the powder; five grains in a bottle will be, as far as the eye can tell, about one-half the height of eleven grains; it is not as easy to tell the difference between five and five and one-half grains as between one-half and one grain; when Dr. Lund was sick he was attending to his



practice as usual ; when a doctor is sick he takes some medicine himself, and all his friends give him some ; I did not graduate at Williams' College where Dr. Lund did ; I know the signature upon his medical diploma from Harvard, and I recognize Mark Hopkins' name upon his Williams' College diploma, because I have seen his name in a letter and have every reason to suppose he wrote it himself, although I did not come in the mail with the letter ; I left Boston on the 28th of November, 1869 ; I went to New York and from there to Bergen ; I gave up practice in Boston, May 1st, 1869, and practiced at Long Branch during that Summer ; I then went to Boston again and left, as above, in November.

To Mr. Dixon : Mr. Coates was short, stout, short neck, answering exactly to the description of a man liable to be attacked with apoplexy ; fatty disease of the heart will interfere with the propulsion of the blood, and so cause congestion, and yet in order to detect that disease it might be necessary to examine the heart microscopically.

To the Court : The cause of the pain might also cause all the other post-mortem appearances, as the congestion, and produce death without morphine. Anything that irritates the nerve centres, as congestion, would cause contraction of the pupils ; Dr. Lund said that night that the medicine was for Noonan, and left my room with the medicine, under the impression it was for Noonan.

To Mr. Dixon : It was myself that first discovered the closure of the cystic duct ; I made some inquiry, and on the strength of that inquiry the duct was carefully examined, and some argument arose in regard to it, Dr. Wilkinson insisting it was not completely closed ; a careful dissection was then made and every one acknowledged it was completely shut up.



DR. JOHN M. CORNEILSON,

Examined by Mr. Dixon, testified :

Have been practicing until within the last ten years, since 1825 ; I live in Jersey City.

Q. Doctor, if you should administer morphine to a patient who was suffering severe pain, and he should go to sleep, sleep an hour and a half, wake up, say he felt better, converse about his business, ask for something to drink, should you then think there was any danger from the morphine ? A. I should not ; if the dose had been one grain and the pain came back, I should not hesitate to repeat the dose ; *a fatal dose would not relax its hold.*

*Cross-examined :*

The symptoms, of course, vary much, but in such a case as narrated by Mr. Dixon, a dose of a grain could not cause death ; in my experience, if the morphine did not act in fifteen minutes, I should repeat it ; I think, generally speaking, that a grain is a large dose ; in giving Magendie's Solution, I give from five to twenty-five drops ; I never saw Dr. Lund before, until he was pointed out to me to-day.

DR. I. N. QUIMBY,

Examined by Mr. Dixon, testified :

I live in Jersey City, and am an allopathic physician of thirteen years practice.

Q. Doctor, if a patient should take a dose of morphine, having severe pain, should become quieted, sleep an hour or more, wake up of himself, converse intelligently, ask about his business, call for a drink of tea, would you think he was in any danger ? A. I should not think there was any danger from the morphine ; morphine commences its action almost immediately upon being taken into the stomach, *and its action is continuous and persistent ;* if after the above



described case, the patient again went to sleep, I should look for some other cause than morphine; the usual dose of morphine is from one-quarter to one-half a grain; some give at the first dose as much as a grain, although such is not my practice; this is a matter of judgment, however, some giving as high as two grains; I would not expect a grain to prove fatal; it is customary to give grain doses in severe pain; in post-mortems from death by morphine, the *congestion is not well marked*; in one case where four grains were taken, I found no congestion; in apoplexy we find the congestion principally in the brain; in a post-mortem it is always necessary to weigh and measure everything; blood poisoning always causes congestion, blue-ness of skin, contraction of pupil, coma, clammy perspiration; in poisoning by morphine the skin on the other hand is usually dry; I knew a case once where all the physicians assembled thought the patient was dying from paregoric (a preparation of opium), when the post-mortem showed that it was poisoning of the blood by uræmia; pus can be absorbed from the gall bladder.

Q. If, after the train of symptoms I have given you, the man should again go to sleep, become comatose, have a livid skin, profuse perspiration, cold surface, contracted pupils, inability to swallow, a slow and full pulse, have eight grains of belladonna injected into his system and die in nine hours, then the body be kept upon ice, and the post-mortem should show congestion of the body, bloody serum in one of the ventricles of the brain, small lungs bound down by adhesions, enlarged liver, distended gall bladder, filled with decomposed pus, complete closure of the cystic duct, would you discover in these symptoms a sufficient cause of death? A. I find them, evidences of serious disease, as pus could not accumulate there without being serious; pus may be dormant for some time and



then suddenly wake into life, and carry the man off; the pus here indicates to me a very serious trouble; the gall bladder is in a vital spot; the brain may have been congested from the pus; death has occurred from not one-half of these causes; many do not think that belladonna is an antidote to morphine; I should think the giving of eight grains of belladonna for one grain of morphine would be hazardous; if the patient was apoplectic it would determine the blood to the head and so increase the danger.

*Cross-examination :*

I have seen ten or twelve cases of pyæmia; it causes congestion; if I was called to a man with the symptoms of Mr. Coates, and found he had taken a grain of morphine, I should inquire into his history; taking the symptoms by themselves, I should say it might be due to apoplexy, uræmia, or morphine poisoning; although the action of morphine is sometimes delayed, I never heard of a case where it was delayed for a long time; brandy would not suspend the action of morphine, which after it had once taken hold would be continuous; the contraction of the pupil is a good symptom of morphine poisoning; I do not myself give more than one-half a grain at a dose, as I regard it hazardous; if I had sent one grain from my house I should wanted to have seen the patient that day, at least; the smallest fatal dose I ever knew was two grains; it is problematical whether the diseased condition of the man would have hastened the action of the morphine; the action of that and pus are similar; cases of pyæmia are generally preceded by protracted sickness; the shortest time I have known is four or five days; I should not give morphine in pyæmia, unless there was pain; in post-mortems we do not weigh everything, but only those things that seem out of the way; but we always measure the fluid contents of any part.



MRS. J. HASLETT,

Examined by Col. Rogers, testified :

I saw Mr. Coates the night before he died ; I talked with him, but he said it hurt him to talk ; before I left I said, Mr. Coates, you talk so feeble that it seems to me as if something was the matter with your lungs ; he said no doubt but what there is ; I have known him to complain of his health many times since I have known him.

By the Court : Are you accustomed to seeing sick persons ? A. Yes, sir.

*Cross-examined :*

Have heard him complain of a cough or severe cold ; do not think he was complaining of a cough at this time ; he said he had something here (witness placed her hand in the region of the stomach), which if he could only get it up he would feel better.

By Col. Rogers : Do you know whether Mrs. Coates ever said to you that Dr. Wilkinson had given her a letter of introduction to a lawyer ?

Question objected to, and objection sustained.

MR. WALTER R. COOK,

Examined by Mr. Dixon, testified :

In July last I was a clerk in the drug store of Mr. Wells, Monticello Avenue ; I remember Dr. Wilkinson bringing me a powder to weigh, and asked me to be very particular about it ; I took the powder and went behind the counter to weigh it ; he came behind the counter and saw me weigh it ; *it weighed just one-half a grain* ; he said it was one of the three powders that had been given by Dr. Lund and he had killed a man, but did not say what man ; I did not hear until after this of Mr. Coates' death ; I did not ask Dr. Wilkinson if he was satisfied with the weight, nor did he express any dissatisfaction ; I balanced my



scales, as I always did, to see that they were correct; they were brass druggist's prescription scales; they were accurate, and my weights were true; I had no weight smaller than one-half a grain; Dr. Wilkinson called me out of the store about eleven o'clock the next night, and asked me if I had told any one about weighing the morphine; I told him I had told Mr. Wells that it weighed one-half a grain; Dr. Wilkinson then told me I had better say nothing more about it, as he had had it weighed on a very delicate pair of scales, and it weighed a grain, instead of one-half a grain; he thought we had better *hush* it up for the reputation of our scales.

Q. Did Dr. Wilkinson suggest that you weigh the powder over again? A. No, sir. Q. Did you tell him you could not weigh so small a quantity as one-half a grain? A. No, sir, not that I remember; I don't see why I should say so, as I *could* weigh it; generally, if I want a quarter of a grain, or any small amount, I weigh out four grains, and then subdivide it by the eye; it is more accurate; it is impossible to get one-half a grain in one powder, and one grain in another, and not see the difference in bulk; I am sure I told Dr. Wilkinson the powder weighed one-half a grain; I am positive I weighed all the powder, as I cleaned the paper out with the spatula; Dr. Wilkinson had always been in the habit of sending prescriptions to our store, and we had always used these scales.

*Cross-examined:*

I am not now with Mr. Wells; I left him last August; I do sometimes weigh so small a quantity as one-half a grain; I am twenty-five years old, and have been a drug clerk seven years; do not remember the color of the paper that the powder was in; I told Dr. Wilkinson that there was one-half a grain, not



that I *thought* there was; I did not ask Dr. Wilkinson to reweigh the powder when he came the second time; Dr. Lund used to send prescriptions to Mr. Wells when I was there, but has not sent me any since I commenced business for myself; my store is on Bergen Avenue, but is not yet open; I never made any effort to disguise the fact that the powder weighed one-half a grain.

COL. WM. E. ROGERS,

Examined by Mr. Dixon, testified:

I was present one evening at Dr. Lund's house with Capt. Cloke and Dr. Lewis; in order to test the accuracy of Dr. Lewis in putting up medicines by the eye, we asked him, unexpectedly to him, and with no premeditation on our part, to put up for us one-half a grain of morphine; he put up a powder, without weighing it, and gave it to me for one-half a grain; I carried it down to De Mott & White's drug store, corner of Newark Avenue and Cole Street, and asked the clerk to weigh it, and be particular about it; I saw him weigh it, and it weighed just exactly one-half a grain, not varying a particle either way; he explained the marks upon the weights to me, so that I knew it was a half grain weight he put on the scales.

*Cross-examined:*

Q. How do you know it was not a half-pound weight instead of half of a grain? A. The weight had the figure  $\frac{1}{2}$  upon it, and the clerk told me that that meant one-half of a grain; the grain weight had one circle on it; the two grains had two circles.

MRS. MARY COATES,

Recalled by defense, and examined by Mr. Dixon:

Q. After your husband's death, did Dr. Wilkinson give you a letter to a lawyer? A. Yes, sir; he gave



me a letter to Mr. Archibald Brown to *introduce* me to him. Q. Did Dr. Wilkinson say anything to you then? A. He told me I ought to have a lawyer. Q. How long after your husband's death? A. About a fortnight.

*Cross-examined :*

Q. Did you ask him for the letter? A. Yes, sir.

JOSEPH PONDER,

Examined by Mr. Dixon, testified :

I am about twenty-three years old, and have lived with Dr. Lund for a year and three months ; I was a slave, and came from Virginia ; I recollect the night Mr. Coates died some one coming for Dr. Lund ; I was undressing when the bell rang ; I ran down stairs without putting on my clothes, and opened the door a little ways, so as not to show myself ; a lady was at the door, and she asked if the Doctor was in ; before I could answer, the Doctor called out, " stay where you are ; " I asked her to shut the door, and ran up stairs, but I heard her laugh as she saw my bare legs ; when I went up stairs the Doctor had gone into the office ; I would not know the lady if I should see her ; she did not give me her name.

*Cross-examined :*

Have not been in the habit of attending the door, after I had gone to bed, but did in the day time ; there was a light in the hall ; when I went up stairs the Doctor was in the office ; the words I heard him use were, " I will be down in a minute."

By the Court : Was there a bright light in the hall? A. I don't remember.

Mr. Dixon offered in conclusion, as evidence, the first testimony of Mrs. Coates and James Kelly, before



the Coroner's Jury, wishing to show that their evidence had been contradictory at different times.

Mr. Garretson objected to it, unless Mr. Dixon should also offer their second statements before the Coroner's Jury, as evidence.

Mr. Dixon refused to do this; he, however, wished to be understood as not objecting to the admission of their second statements, but only that he did not intend to offer those statements himself.

The Court desiring those portions first read, which were to be admitted, Mr. Dixon read at length the testimony he had alluded to. In that testimony neither of the witnesses swore to Mrs. Coates having given her name to the boy at the door that night. This was an interpolation afterward, and entitled to no credit. Many other evident discrepancies gave additional force to the idea, that these particular witnesses were either not honest, adding from time to time such testimony as seemed necessary, in order to secure conviction, or else their memories were too defective to be relied upon.

Those portions of the testimony before the Coroner's Jury, read by Mr. Dixon, were admitted in evidence by the Court. As Mr. Garretson did not read the portions he also wished admitted, the result was that that read by Mr. Dixon was the only part received in evidence.

#### THE DEFENSE HERE RESTED.

Captain Albert S. Cloke then summed up for the defense. He reviewed, in a most eloquent manner, all the evidence brought out upon the trial; although there was so much of it, he still never grew wearisome to his audience. His argument was both able and exhaustive, and attested in a remarkable manner to his fidelity in following the evidence.



Mr. Dixon then succeeded him, also for the defense, in a short, but very able argument. No one who has ever heard him speak, or who is at all familiar with his happy facility for condensing his thoughts into a few words, and driving them home in a forcible manner to the minds of his hearers, can doubt for a moment but what he was listened to with most profound attention.

After Mr. Dixon had resumed his seat, Mr. Garretson closed on the part of the State. His argument was also able and well delivered, and reviewed in a brief but complete manner all the evidence for the prosecution.

His Honor, Judge Randolph, summed up for the Jury. Every word that fell from his lips showed most clearly his double nature, that of the judge and of the man. On the one side he was always stern, if necessary, but the second part of his nature enabled him to temper that sternness with compassion. No one could listen for a moment to his utterances without feeling that the words came from the good heart of a just arbitrator. His desire was evident to see justice done, without impugning, in the slightest degree, the motives or honesty of any man.

His Honor charged the Jury as follows:

GENTLEMEN OF THE JURY; I congratulate you on being so near the termination of this case, which has occupied so many days of your time and to which you have devoted that attention, care and constancy which has been so marked; and the Court take this opportunity to thank you for the undeviating attention which each one of you has given to the case during its progress. It is a case of great importance, on account of the grade of the crime that is charged, on account of the effects it may have upon the community in reference to the practice in which the defend-



ant is engaged, as a physician, not to speak of the effects that it may have in reference to him himself. It is the duty of the Court and the Jury to lay aside every consideration, so far as the effects of the discharge of our duty are concerned, and simply do our duty at the moment, leaving the consequences to the law. You have been so long accustomed, gentlemen, to the discharge of duties of this nature, that it is entirely out of place to make any suggestions in reference to the necessity of looking only at the facts which have been proved, and of not permitting any other influences to mould your action, other than the simple effect of those facts acting upon your minds, and thus bringing you to a conclusion.

Doctor Oscar F. Lund is charged with the crime of manslaughter, which is the taking away of the life of a human being without malice, and upon your verdict will depend whether or not he has been guilty of that crime. And I would here say that if, when you come to look at all the facts, you have a reasonable doubt of his guilt, you must give him the benefit of that doubt; that is right, that is proper. Gentlemen, it would not be justice if it was not done. He has the right to ask that, and he has the right to be considered innocent by you until your minds are convinced, beyond a doubt, that he is guilty of the crime with which he stands charged.

In the first place, was the death of Mr. Coates caused by morphine? In coming to that conclusion you must take into consideration all the facts which bear upon the question as to *what* caused his death, for that question meets you at the threshold. If it is not proven, beyond a doubt, that Mr. Coates died from the administration of that morphine, then you need go no further; that is an end to this case, and the defendant should be acquitted.

Now, look at it a moment and see what determines



the question whether the State has proved that morphine was the cause of Mr. Coates' death. Is it so, beyond a reasonable doubt? Take into consideration the condition of the patient from Sunday night until the morphine was administered at half-past twelve on Tuesday night. What were his symptoms? Pain on Sunday night, a physician called in, who brought relief during the night; Monday morning, feeling better, not, however, going to his work, but on Monday going about, sitting down to his dinner; after dinner, going to the ball ground, standing two hours or more, returning home, meeting his physician in the afternoon, receiving a prescription to remove the difficulty; the physician, on Monday morning, looking at him, considers him not as having much the matter with him, only pain and a nervous system out of order, and, in that view, prescribes for him. On Monday afternoon he parts with his physician; he goes to bed, sleeps well during Monday night. Tuesday morning he rises, eats his breakfast, *don't go to his work*; disease knocks at the door, steps in, engages his attention, arouses his interest; he is troubled; he begins to think more than has been spoken here. You have a right to say what has been operating upon his mind. He asks his wife whether there is not some homoeopathic physician; she names to him Lewis and Lund; he says he would like Doctor Lund. In the meantime, his disease, whatever it is, comes on and seizes him with pain, and his wife employs all her skill and knowledge, gained from years of experience. A woman knows what it is to be in the sick room, for she is a guardian angel, to minister to our wants in times and places when no physician can come in: she knows where to put her soft hand, when to exercise her care. Mrs. Coates bestowed on that man all the fertility of her thought in seeking out remedies that afternoon. Hot cloths and mustard were brought to



remove pain; she does not succeed. Doctor Lund is sent for; he comes, scrutinizes the patient, returns and tells Dr. Lewis that he examined him and found his pain radiating from the liver upward, in both directions. He examined the medicine that had been given, and he sent back a medicine, which reached there Tuesday afternoon; it was to be taken in one-hour doses, and it was taken at three, at four, and at five o'clock. It did not seem to remedy; the difficulty was there still. He was more sick than he had been, and, for some reason, he gave up taking the medicine. At nine o'clock you have the neighbors present, and talking with him, and they take their leave, never dreaming that death was standing near the door.

You will remember all the facts in this case, and you will use them without reference to any theory the Court may have; but you will remember that one of the neighbors thought at first that Mr. Coates was not very sick; he had an idea that the man was nervous; but when he was about taking his leave, he noticed Mr. Coates' remarks, and he was impressed by what he said, and it was then that he referred to his seeing him in the morning, and there was something said about the cemetery, very significant, showing that the deceased was carrying about with him a knowledge or perception of something in his system which had not been observed, and he said that the doctors did not understand his case.

Now, follow it on. It goes on to ten, Mrs. Coates says eleven o'clock, when she called up her brother, who had been sleeping upon the floor below, telling him to wait for the Doctor to come; that she had been there, and for him to remain by her husband until the coming of the Doctor. Then the symptoms kept increasing until twelve o'clock, when she went back, and received from Dr. Lund the three powders. Look from the beginning of the disease on Sunday



night, until the powder was taken by Mr. Coates. What was the extent of that disease? It was not morphine then. It was not the effect of the first powders that were given, because it was all there. But the difficulty kept increasing. How far it may have been precipitated by his being out upon the ball ground we cannot tell.

The subtle operations of the influence that comes upon this delicate organization of ours, combining with what we have in us that is deleterious, and brings about fatal disease, we know nothing of. We only know that to-day we are alive, to-morrow we are on our way to the grave. There is a point where the keenest intellect of the brightest genius cannot pass beyond; and he is an honest man, and a fair man, who at once acknowledges it. How much there is about this system of ours that we know nothing of. Take Mr. Coates, for instance, from the time he was attacked until he took the morphine. Was not he a sick man? It is for you to say whether he was not a *very* sick man. But then, certainly, it was *not* morphine. Now, take him from the time he took the morphine. From the testimony, to be general, in a short time after that he was excited; that would be the natural effect of morphine. Then in the course of fifteen or twenty minutes, perhaps longer, he sat down in a chair and went to sleep, and he continued to sleep for an hour, probably an hour and a half. Then he awakened himself. At that time there was with him a neighbor, with whom he conversed about going to see Mr. Gross, a gentleman connected with the Cunard Docks, and in reference to business transactions. He spoke of feeling better. His daughter Lizzie came in, and, fondling up to him, asked him, with a daughter's love, as to how he felt: "Why," he says, "I feel as if I was in heaven, compared to what it was an hour ago." That was the difference



between the racking pain and the lull that succeeded it, an expression which one who is in the habit of speaking strong might make, and a rational expression. Then a little while after, as Mrs. Coates' brother, James Kelly, was sitting by him, there occurred a marked incident. He said to James, "James, the crisis has come; the crisis has come." I do not recall the other expression. It was very marked; showing that something was going on within him that he did not understand, but which gave him a premonition of his approaching end; and his head sank, his eyes closed, and James Kelly noticed, or imagined he noticed, a change; the eyes of Mr. Coates sank. That was in the neighborhood of four o'clock in the morning, after he had been roused up, and in a condition—if there is anything in the medical testimony—which showed that he was rid of the effects of the morphine that he had taken at half-past twelve. If you find that something took place in his system, at that time, or any other, independent of the morphine and its effects, which would cause his death, the curtain lifts, and you are relieved in reference to what your verdict shall be; for if death was caused by something other than morphine, or, if you have doubt of its being morphine—from the surrounding circumstances—the defendant has a right to have that doubt, without any criminal imputation against him.

Follow it on. The wife's attention is attracted, for the stertorous breathing then comes in, and all that avalanche of symptoms which show the end. The result is, she sends for another physician. He comes, and he sends for two other physicians. They examine the man; they find that he has taken morphine; they all conclude that morphine is the cause of death. Did they, at that time, carefully inquire as to all the symptoms? Did they ascertain from Dr. Lund how



much he had given? Did they know what quantity had been taken? Did they know how it had operated during the night? Did they inquire whether Mr. Coates had awakened, and had passed some minutes or half an hour in a state of consciousness after he had taken the morphine? Did this only come out upon this trial, and not appear before the Coroner's Jury? Or, having learned that morphine was given, did they at once go to work upon that theory without looking into the case more particularly, and endeavor to work up a case by giving an antidote for morphine? Well, if they did, they were doing just what you and I would have done if we had been physicians. At the same time the foresight of man is so little, that when events have passed, and we look back and examine with the light of experience, we may say "it was all a mistake."

I cannot understand how it is, that, even when life is at stake, physicians will give expression to animosities against fellow members of their noble profession; and I am afraid that sometimes from these bickerings, the patient has slept the sleep that knows no waking. That is not the general rule, I know, and within the last few years the medical profession has been raised to a standard higher than it has ever occupied; and I may say that the time is very near when physicians of the different schools will meet each other cordially, recognizing the common object of their study to be the welfare of humanity. These gentlemen were exercising their best judgment in their endeavors to rescue Mr. Coates from impending death. But it has become our duty, since this matter is brought into a criminal court, to see whether they may not have been laboring under a mistake when they ascribed the death to morphine, and to inquire whether death might not have occurred from some other cause; from a disease which was not noticed or discovered



until afterwards. It is true that some of the symptoms manifested in the case of Mr. Coates were recognized as the effects of morphine. But it is also true that those same symptoms accompany other disorders. One difference between the effects of morphine and the appearance of apoplexy is that in case of poisoning by morphine the pupils of the eye are contracted, made smaller; whereas in apoplexy they are, ordinarily, both dilated. Those are general rules. They are subject to exceptions. And when you come to apply general rules in criminal cases you must give the defendant the benefit of the exception. You are to consider whether, in this case, the contraction of the pupil may not have been brought about by the causes which brought about death, if it was not morphine. Now, the physicians examined all the way from the head through the trunk; in the head they did not find anything very marked; indeed, you cannot rely upon the marks of morphine; you can rely better upon the marks of some other poison, as a metallic poison, because the traces are more distinct than in the case of a narcotic. Then examine the lungs and you find they are attached to the walls of the cavity in which they are lodged. Some of the physicians say this attachment would have no perceptible effect. Others say it would reduce the powers of the man generally. You are to look at that in connection with other things which go on hidden in the system. You find the colon giving evidence of disease. One of the physicians stated it was in such a condition as would cause pain, and account for symptoms of approaching inflammation. You look further, and you find the liver enlarged, and under it, what? That pear shaped sack, which is placed under the liver for the purpose of receiving the surplus bile, is found distended, and full or nearly so. And when they come to open it, instead of finding bile, they discover a material which is



not normal, nor does it belong there; and every physician who has testified in the case, points it out as a cause of disease; the contents, if not in a state of putrefaction, are approaching it, so as to be offensive to the smell. And then the cystic duct, whose office has been explained to you, was found completely stopped up, so that it could not be probed, and it had finally to be opened. There was a cause of disease. One of the physicians said that in twenty-four hours, at all events in a very short time, through natural pressure, some of the contents of the gall bladder might have passed into the system. Now, that kind of material in the system is what people are dying of every day. We call it septicæmia, or pyæmia, from whatever way it affects the blood; sometimes the symptoms are noted for a long while, there is a tendency to congestion, and very many of the symptoms are those that accompany morphine.

Now, gentlemen, it is for you to take the case according to the post-mortem examination. Take the condition of the man according to his own statement, as to how he was, and see if you are satisfied that his death was caused by morphine. There is another feature in the case to which it is, perhaps, proper to refer, and that is the effect of belladonna, which was infused into his system, as an antidote for morphine, though some doubt that it is an antidote. But the usual effects of belladonna were produced in the skin and in the eye. Now, it is a question whether the disease of which he died may not have been accelerated by the use of belladonna. From all the testimony in the case, it is a question whether the effects of the morphine he had taken had not passed away, and whether the pain from which he was suffering had not been subdued by the morphine, which was antagonistic to it, when he roused, after his sleep of an hour or more, and said that he "felt as if he was in heaven,



compared with his feelings of an hour ago ; ” and then, the “ crisis came,” the deadly power asserted itself, and struck the mallet right upon the spot, and death followed. If that was the case, belladonna would not have been the proper remedy.

But if you still hesitate as to whether morphine was the cause of death, the Court would suggest that you examine as to the quantity of morphine. What is the proof ? It would appear that the rule is not settled as to what is a maximum dose ; and it is for you to say whether or not a grain is to be considered a fatal dose, or that bad consequences might be expected from it. Upon the question whether morphine was the cause of death, it is proper for you to ask how much was given. If you find half a grain was given, instead of a grain, it makes a very material difference ; because it is clear that half a grain is not considered a dangerous dose at all, as compared with a grain. Well, one of these powders was taken, and two were left ; Dr. Wilkinson and Dr. Forman each took one. Dr. Wilkinson had his powder weighed by Mr. Cook, and, according to Mr. Cook, it weighed half a grain ; Dr. Wilkinson went behind the counter and saw it weighed. He did not correct Mr. Cook, and say it weighed a grain, or that it weighed at all otherwise than as Mr. Cook announced. Still, he had some misgivings as to its having been correctly weighed ; probably on account of the conversation that was had, for Mr. Cook says they talked about his scales not weighing half a grain ; and the powder was weighed again at Gardner's, and there, he says, Mr. Gardner said it was a little short of a grain. In addition, it is said it was sent to New York, and weighed there. But look at the evidence. The druggist, Mr. Cook, twenty-five years of age, and seven years in the practice, says he weighed it, and he distinctly remembers that it weighed a half grain :



Dr. Wilkinson says he was there, and that Mr. Cook told him it weighed half a grain. Then the Doctor says he took it somewhere else, and there it weighed a grain. Now, where is the weight of evidence between these two? As between these two scales the Doctor stands balanced, and Mr. Cook is left *unquestioned*. Professor Doremus states that he received from Mr. Burns, himself, two powders. That he weighed them, and found in one, six-tenths of a grain, and in the other a little over a grain. Now, which of these two was weighed by Mr. Gardner? Which of these two was weighed by Mr. Wells or the clerk, Mr. Cook? It could not be that Cook weighed the one that weighed a little over a grain, unless he made a mistake, supposing his evidence to be correct. And it could not be that Mr. Gardner weighed the one that the Doctor says weighed half a grain. So, here we have two powders, both alike. Neither Professor Doremus, nor Mr. Cook, nor Dr. Wilkinson would be suspected, for a moment, of saying that which they did not believe to be true. Therefore, there must be some hidden clue to this which is undeveloped. You must pick up what facts you can to account for it. Is it not possible that Dr. Forman and Dr. Wilkinson, after the measurement at the first drug store, by Mr. Wells, may have, in talking it over, with the powders in their hands, both alike, by some misunderstanding and without noticing it, got them exchanged (*Appendix aa*), so that the next time Dr. Wilkinson had his powder weighed, he had the one which weighed a grain, instead of the first one? That accounts for it, and leaves every one of these gentlemen testifying just precisely to what did occur. I do not see any other way by which this question can be solved. Now, what have you? The result of all that is, you have two powders, one of them weighing little over half a grain, and the other a



little over a grain. Now we pass on to the third powder. How much did that weigh? Was it equivalent to a grain or a half grain? The probability is, that whoever put up the powders would try to make them alike. But if there is any doubt in your mind as to the size of the powder you must give the defendant the benefit of that doubt. That is just where the case stands as to the quantity of morphine, except the testimony of Dr. Lewis, who certainly states very clearly the whole of the transaction in reference to the morphine that was in the bottle, which he carried in his pocket. On the second of July he went to Long Branch. He arrived at Bergen, on his return, on Sunday, and took two quarter grains, and subsequently he took out three half grains. That on this night he rolled it out of the bottle, and made it all alike, and that, after the difficulty occurred, he weighed what remained, and found there were nine grains left. That would seem to coincide with the statement on the part of the defense, only it leaves this: it leaves one of them having a grain and a little over, and the other a little over a half grain, which would make a grain and sixty-eight hundredths, which would be more than three half grains. It is for you to inquire whether the other powder was still smaller. Then there is another consideration. May it not be that the carrying about of this morphine, the having it exposed to the atmosphere, in examining it, caused it to appreciate in weight? Such is the result with very many substances, particularly feathery substances.

The next question for you to consider is (if morphine was the cause of death) whether the defendant is guilty, although he may have been the instrument of administering it. It is alleged on the part of Dr. Lund that he made a mistake. It is for you to say whether that mistake involved a degree of negligence that was criminal. Negligence is the omission of



care in the discharge of a duty. It is said to consist in omitting to do something that a reasonable man would do, or the doing of something that a reasonable man would not do. What is, or is not negligence, depends upon the peculiar circumstances surrounding and connected with the person whose acts are to be criticised or examined. The degree of care which entitles one to recover of another compensation for injuries, resulting from his negligence, is such as a prudent man would observe in order to prevent the accident or injury. If a man is in the exercise of due and ordinary care, he is not negligent. But the care must be such as the circumstances require. This is familiar law when a civil suit for damages is before the Court. Every man must respond in damages for injuries resulting from his want of care. Ordinarily he is liable for the consequences, without reference to the kind of negligence. But the rule in criminal cases is somewhat modified. In the case of a physician who, in his daily practice, is constantly dealing with health and life, the degree of negligence in the discharge of his duties is well settled. By the earlier authorities it would seem that in no case where a physician intended to cure could he be held criminally responsible. It is now held there must be a responsibility though the intention was laudable. A physician who, under ordinary circumstances which require care, attention and prudence, in administering or in dispensing medicine, omits the use of any care, or attention, or prudence, or uses very little care, attention, or prudence in the giving of medicines, in quantities which are dangerous to life, if death result from such a degree of carelessness, he would be held criminally responsible. A physician must be at liberty to exercise his judgment in the use of remedies and in dispensing them; but in doing so he cannot with impunity throw away all care, or act with indifference as to the effect



of a dangerous medicine, or as to whether the right person receives a dangerous medicine when it may cause death. He is criminally responsible, however, only in case of *gross* negligence; that is, such a want of care as persons who are not accustomed to do things with much care would, under the circumstances, give. The mere lack of a degree of care with persons who are quite careful in the performance of their duties, is not sufficient, but it must be such a gross want of thought and attention and care as evinces a reckless, indifferent mind, not appreciating the danger nor impressed with the consequences of a mistake. In our State a physician receives, under the authority of the State, a license, under which he acts, and he is supposed to have a discretion equal to the emergencies which will ordinarily arise in his practice. If he omits to use such care and attention as would show that he acted without any thought of the consequences, notwithstanding his license, he would be guilty in case death resulted from the mistake he might make. Now look at this case. What do you find? Here was Dr. Lund, who, in the afternoon, had been to see Mr. Noonan, and had found him bordering on delirium tremens. He had returned and had seen Mr. Coates, and had administered to him; he had then again gone to visit Mr. Noonan, and had returned from the visit at half-past ten. Whether Mrs. Coates had been to his house before that and he had gone to Noonan's, in consequence of her call, does not appear. But why did Dr. Lund go to Mr. Noonan's house again? Was it because somebody had called for him to go there? Mrs. Noonan says she did not go after him; yet he was there twice that day, the last time being about half-past ten in the evening. Dr. Lewis says he met Dr. Lund coming home at half-past ten from Noonan's, showing he had been there. Was Mrs. Coates laboring under a mistake as to



the hour of her call being eleven? Was it earlier? When he said he would go in a few minutes, could he have supposed it was Mrs. Noonan who had called? Suppose it was eleven when Mrs. Coates came; what did she do? She saw him and told him she wanted him to come and see her husband; she left no name, no street, no number; she did not tell him her name was Coates; but only that she "wanted him to come right away." He said he would do so, showing what was the state of his mind. You must look at it just as though these things had not occurred, and you must ask yourselves did he, at that time, act negligently? You saw the two women, their appearance, their size, the make of their shoulders, their heads. You could judge whether a person might mistake the one for the other. If Mrs. Coates was at Dr. Lund's house before half-past ten o'clock, he might have gone to Noonan's by mistake. If she was not there until eleven o'clock, he did not go out at all. She came again at twelve o'clock, and then she gave the name to the boy and, as she says, told him to say to the Doctor that Mrs. Coates wanted him, which the boy contradicts, however. The Doctor answers, from the head of the stairs, that he will be down in a moment, and goes in and consults with Dr. Lewis. Now, what took place in that room? That goes to show how much mind the Doctor had upon the matter. Was he in that room talking about the man with delirium tremens? Was he using the care that persons would use ordinarily under the same circumstances? If he was acting as a prudent man, and if he was prescribing this morphine for the patient with delirium tremens, which would be proper, it is for you to say whether he would lose his presence of mind suddenly, then and there, and be guilty of *gross* negligence.

There are some cases scattered through the books,



which touch upon the duties of physicians. But there will not be found a single case parallel with this, although such a case may have occurred, without being recorded. The case of the State *vs.* O'Brien, a switch-tender in Newark, is a very different case from this. He neglected a simple, plain duty; no number was to be told him, no street, no name. But the Court will take one sentence and read it:

“If the defendant, at the time of the accident, was intending to do his duty, but in a moment of forgetfulness, omitted something which any one of reasonable care would be likely to omit, he was not guilty.”

A person must be held *properly* responsible. In this case, if there was an omission on the part of Dr. Lund, under circumstances which render it probable that another physician would have made the same omission, you must give Dr. Lund the benefit of it. There is one case, in 1828, to which the books refer, where a druggist's boy gave laudanum instead of paregoric, and when his attention was called to the bottle, and he was asked how much was a dose for a child nine weeks old, he gave a dose, fatal, even of paregoric, showing that his mind was totally abstracted from the business he had in hand. Gentlemen, the case is in your hands.

The District Attorney called the attention of the Court to the fact that one of the powders examined had been tasted, and that would diminish its size and weight. He also requested the Court to charge that if morphine accelerated the disease, and contributed to the death of Mr. Coates, then death was caused by morphine poison.

The Court: The Court decides it is for the Jury to say whether morphine might have caused death; even the *belladonna* may have contributed to the furthering of the disease. The question is not between *bella-*



*donna* and morphine, but whether the morphine was the cause of death independent of the *belladonna*.

The Jury retired, but their doing so was simply a matter of form, as they were absent only two minutes before they agreed upon their verdict. They re-entered the court-room. The most perfect stillness reigned throughout the apartment. It was a moment of suspense. On their lips hung both the reputation of the accused and the happiness of his family. With them rested his future life, whether it should be bright and prosperous, or dark and dismal. The verdict came, the clouds of doubt were dispelled, all anxiety removed, and all suspicions banished, by the magic of the two simple words

“NOT GUILTY.”



## APPENDIX.

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(a.) This witness in her first testimony before the Coroner's Jury said nothing to indicate that she gave her *name* to the boy, but she simply made use of the pronoun "I." The boy himself denied (page 161) that she gave him her name. See also page 162.

(b.) Upon page 115, Mrs. Welch testified that she gave Mrs. Coates some brandy. Either the cramps or the brandy made Mrs. Coates' memory defective.

(c.) Mrs. Welch upon this point again contradicts Mrs. Coates. (Page 116.)

(d.) This is a disputed point. Dr. Forman, upon page 69, admits that many physicians do not consider belladonna an antidote to morphine. Dr. Youlin, also a witness for the State, declares, page 102, that, so far from considering it as an antidote, he even considers it as dangerous. Dr. Elliot, upon page 137, gives the same testimony. And when it is seen in the evidence that the form of belladonna injected into Mr. Coates' arm was about of the same strength as morphine itself, the question is suggested which would be most dangerous to human life, one-half a grain of morphine (or even a grain), or sixteen times as much of another equally powerful and poisonous remedy? The amount of belladonna administered is stated upon page 69. In this connection reference can be made to the case quoted by Dr. Craven, page 144, where a medical officer, poisoned through mistake by morphine, took so much belladonna as an antidote that he came very near dying from its effects. Fortunately for the officer, the physicians in attendance did not leave him alone and uncared for in the midst of their treatment, *during an hour and a half*, but their selection of the proper remedies and their continued use, so long as necessity required, at length saved his life.

(e.) The reader can best judge for himself whether "it was impossible to give him medicine." Many physicians believe that even in a state of profoundest insensibility, medicine placed in the back of the mouth will still go down involuntarily. See pages 102, 127 and 130. And even if medicine cannot be introduced into the stomach, it still can be injected into the bowels, and so reach the system. This the physicians did not attempt, even if the



possibility of doing so occurred to them, until the idea was suggested by Dr. Lewis, when they at once proceeded to act upon the suggestion.

(*f.*) See Mr. Cook's testimony, page 159.

(*g.*) It is a fundamental principle in all medico-legal examinations, that most scrupulous care shall be taken with everything that is to be subjected to a chemical analysis. Was it so in this case? There did not seem to be a single witness able to identify the jar, its contents, or the powders, and to be sure, by tracing their progress from one person to another, that they were not tampered with. Dr. Wilkinson, page 46, was neither sure how the jar was sealed nor whether he even saw it done at all. Coroner Burns, page 57, stated that he left the stomach and powders with some unknown person, to give to Professor Doremus. But that unknown person was not brought forward, and his absence was a link missing from the chain of evidence. Dr. Buck testified, upon page 80, that he did not think any special care was taken with the stomach to keep foreign substances from it. Professor Doremus, page 91, said nothing about the jar having being sealed, but testified that he received it directly from the Coroner himself. This being denied by the Coroner, made the whole analysis perfectly worthless. Dr. Lewis said, upon page 149, that the stomach was left carelessly lying upon a painted pine board, and was finally put into an old jar. The whole testimony, in fact, proved that sufficient care was not taken to render the subsequent analysis of any value. But a question properly arises as to what value an analysis, no matter how carefully conducted, could possibly have been in this case? The admission was made that morphine had been given. Dr. Elliot testified, upon page 138, that morphine administered in even so small an amount as the one-sixteenth of a grain, just before death, could yet probably be detected by a post-mortem analysis. Consequently the finding in this case of "mere traces" of morphine did not prove the dose before death to have been excessive.

It would be an interesting question for the tax-payers of Hudson County to ascertain how much money they had thus unnecessarily to pay Professor Doremus for his analysis, and double trip to Jersey City; also what they had to pay him for weighing two powders of morphine, that had already been in the hands of three different druggists, three different physicians and one coroner. It was hardly fair treatment to the individual who labored so earnestly in wandering from one pair of scales to another, seeking after the exact weight of the powder in his possession, to thus doubt his disinterestedness and question the result he obtained, by calling upon another man to reweigh the morphine.

(*h.*) The same witness, upon page 46, with a ready facility of contradicting himself, stated the exact opposite of this answer,



that the post-mortem alone did not indicate morphine as the cause of death. The Doctor at that time had not learned by experience to adopt that plan of answering which he afterwards pursued upon his cross-examination. If he had done so he would easily have avoided the present inconsistency, by those, his few but favorite words, "I don't know."

(i.) Dr. Buck, upon page 80, corrected Dr. Wilkinson, by stating that there were one hundred and twenty drops instead of sixty.

(j.) The Doctor here makes the congestion precede the paralyzing of the brain, while upon page 28 he reverses the order, and states that the benumbing of the brain caused the congestion. It is a little difficult at times for one to tell just exactly what the Doctor does mean.

(k.) Refer back to page 26 and appendix j.

(l.) Upon page 21 the witness alluded to cases where matter had been absorbed from the gall bladder, and yet he "don't know" whether there are any absorbents about the gall bladder. Even a first year medical student would have answered the question by saying that there are very many absorbents about the gall bladder.

(m.) If bile is not absorbed from the gall bladder, how did the witness, upon page 21, suppose it could be absorbed? He certainly made a truthful answer to the question, asking how it could dry up ("in toto") without being absorbed, for it was certainly manifest to all upon this point that he did "not know" what he was talking about.

(n.) Refer to page 20 and appendix h.

(o.) Dr. Elliot did not think so, or else he would not have permitted those persons to have gone without treatment, who had taken that amount in order to commit suicide. See pages 135 and 136.

(p.) But Mr. Haslett remembers, as will be seen by reference to page 142.

(q.) Here again it is proper to refer to Mr. Cook's testimony, pages 159 and 160.

(r.) Mrs. Coates, the widow and principal witness for the prosecution, swore, upon page 160, that he *did* give her a letter of introduction to an attorney. The Doctor's memory was certainly poor, as the many times he contradicted himself in his evidence proved; and it may be that the same interest in the case which he exhibited in his migrations after the weight of a powder of morphine, and which was also manifest in his volunteering to save



Dr. Lund "the trouble" of preserving the powders, was still potent enough to have influenced him in assisting Mrs. Coates to obtaining legal advice.

(s.) Professor Doremus, upon page 92, stated that he received the powders directly from Burns' own pocket.

(t.) The Doctor is very non-committal. Even the last witness but one upon the stand was positive enough upon this point, to say he *thought* he could tell the difference between the two (page 51). And Professor Doremus laughed at the idea of a man not being able to tell the difference between two things lying side by side, one of which was twice as large as the other (page 92). Dr. Youlin, page 102, Dr. Palmer, page 128, Dr. Lewis, page 147, and Mr. Cook, page 159, were also all sure that a mistake would be most unlikely in such a case.

(v.) See Dr. Veir's testimony, page 96, where he states that morphine produces relaxation of the muscles, and not rigidity. The witness's "opinion" would not have been quite so worthless, if his experience of the drug had been more extended and his mind less prejudiced. He had evidently made a firm resolve to swear that "Mr. Coates died of poison from morphine," and, right or wrong, to ascribe every appearance and symptom to morphine. In poisoning from *belladonna* the jaws are sometimes rigid, as will be seen by referring to a case alluded to upon page 150.

(w.) Which is equivalent, according to Dr. Elliot, page 136, to seven grains of morphine. As a child, eight years old, can only bear about one-fifth as much opium as an adult, that amount would have been equal to thirty-five grains of morphine for a grown person, or nearly *nine grains an hour*. That can hardly be called "giving it tentatively." Did the Doctor also give it tentatively in the case of Mrs. Copeland, alluded to in his evidence? If so, her death in a comatose condition prevented him from afterwards speaking of her as "living yet."

(x.) Burns' testimony conflicts with that of Professor Doremus, as will be seen by reference to page 57 and Appendix s.

(y.) This contradicts Mrs. Coates' evidence upon page 13.

(z.) This is the remark which Dr. Wilkinson did not remember (page 49).

(aa.) Such an exchange could not have taken place, as Dr. Forman gave his powder to Coroner Burns *before* Mr. Cook had weighed the other for Dr. Wilkinson. See pages 17, 57, 62 and 158.



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